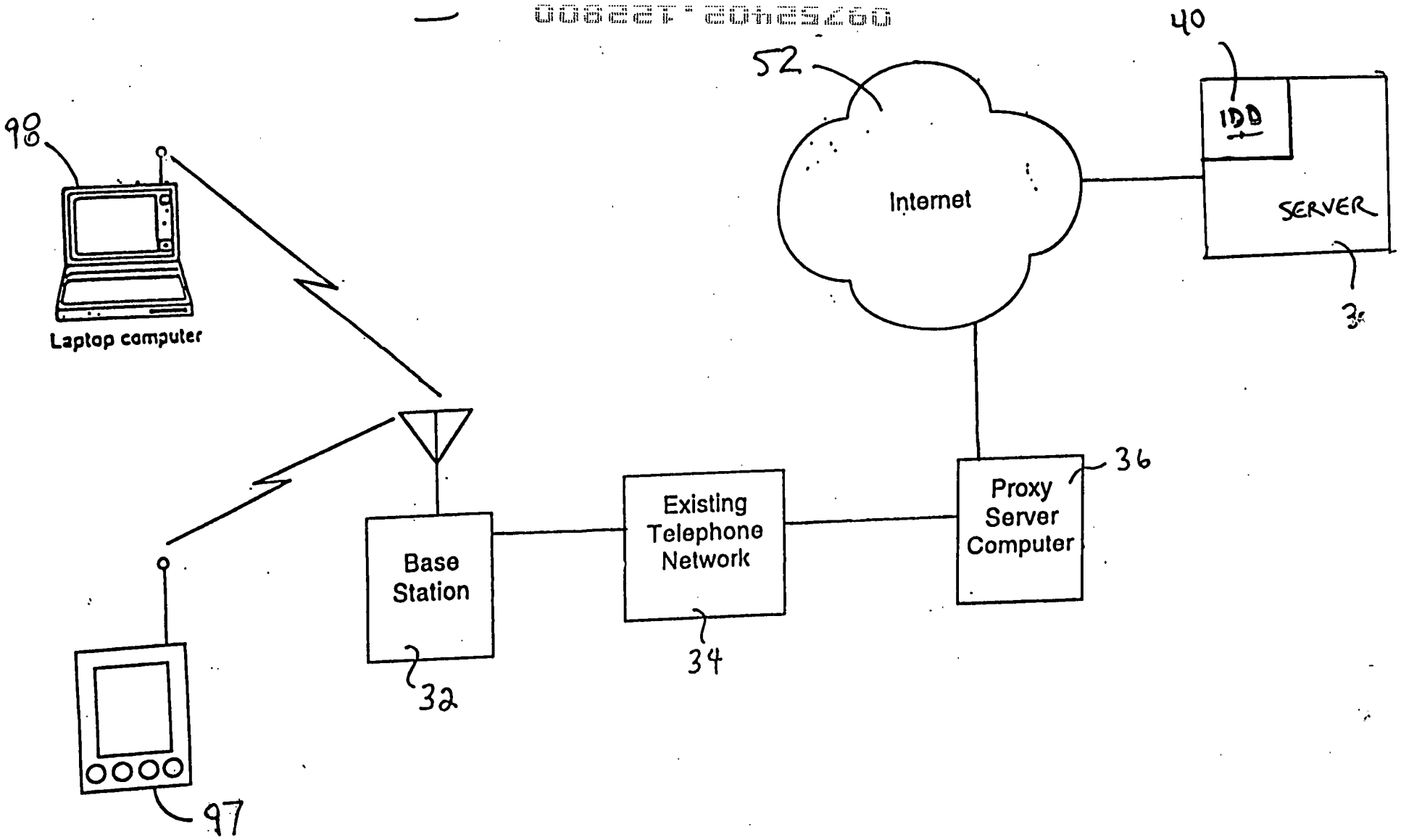

50
98
Laptop computer
52
Internet
40
IDD
SERVER
36
Proxy
Server
Computer
Existing
Telephone
Network
34
Base
Station
32
97

FIGURE 1

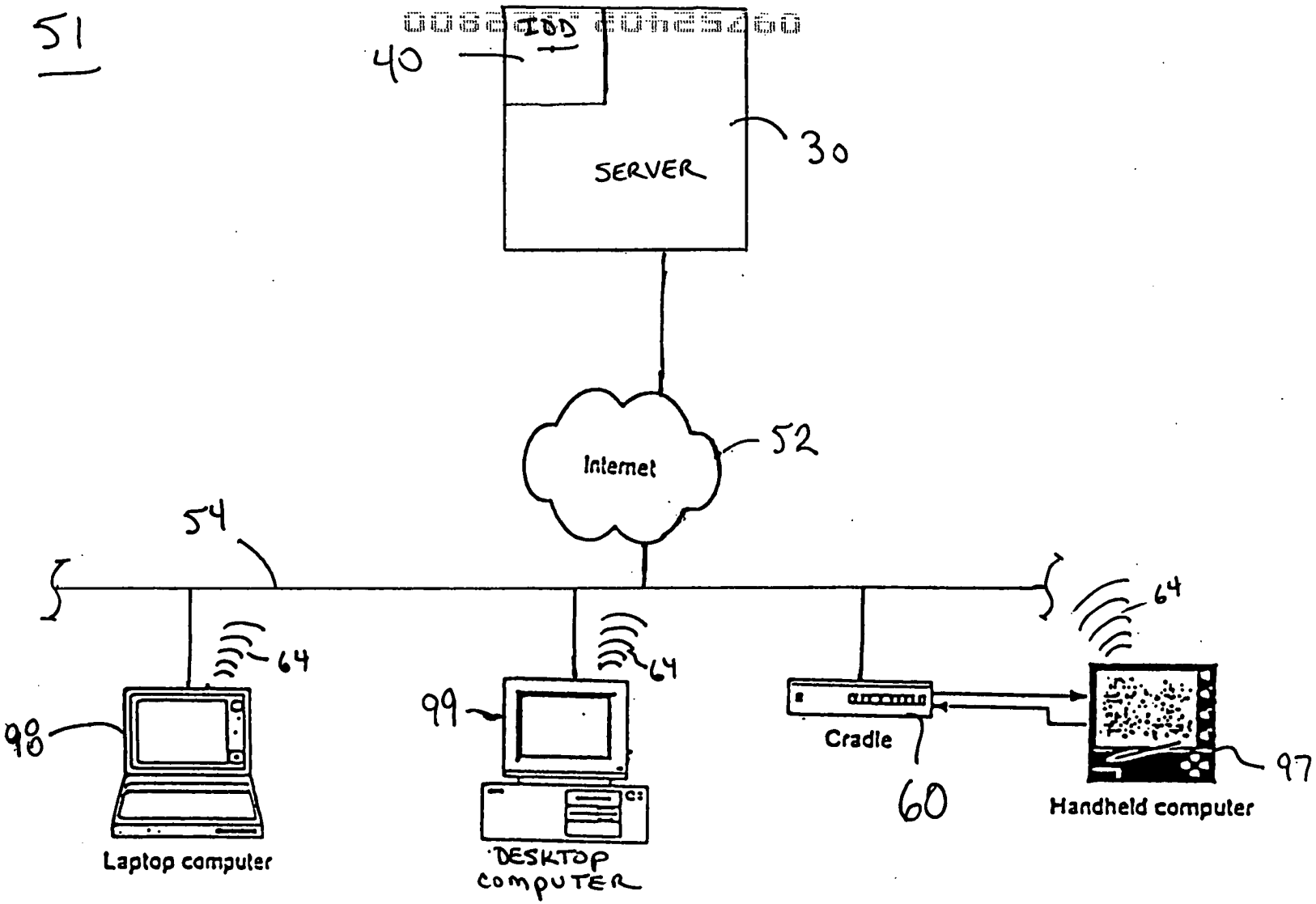

51
IDD
40
SERVER
30
Internet
52
54
64
64
64
99
99
Cradle
60
97
Handheld computer
Laptop computer
DESKTOP COMPUTER

FIGURE 2

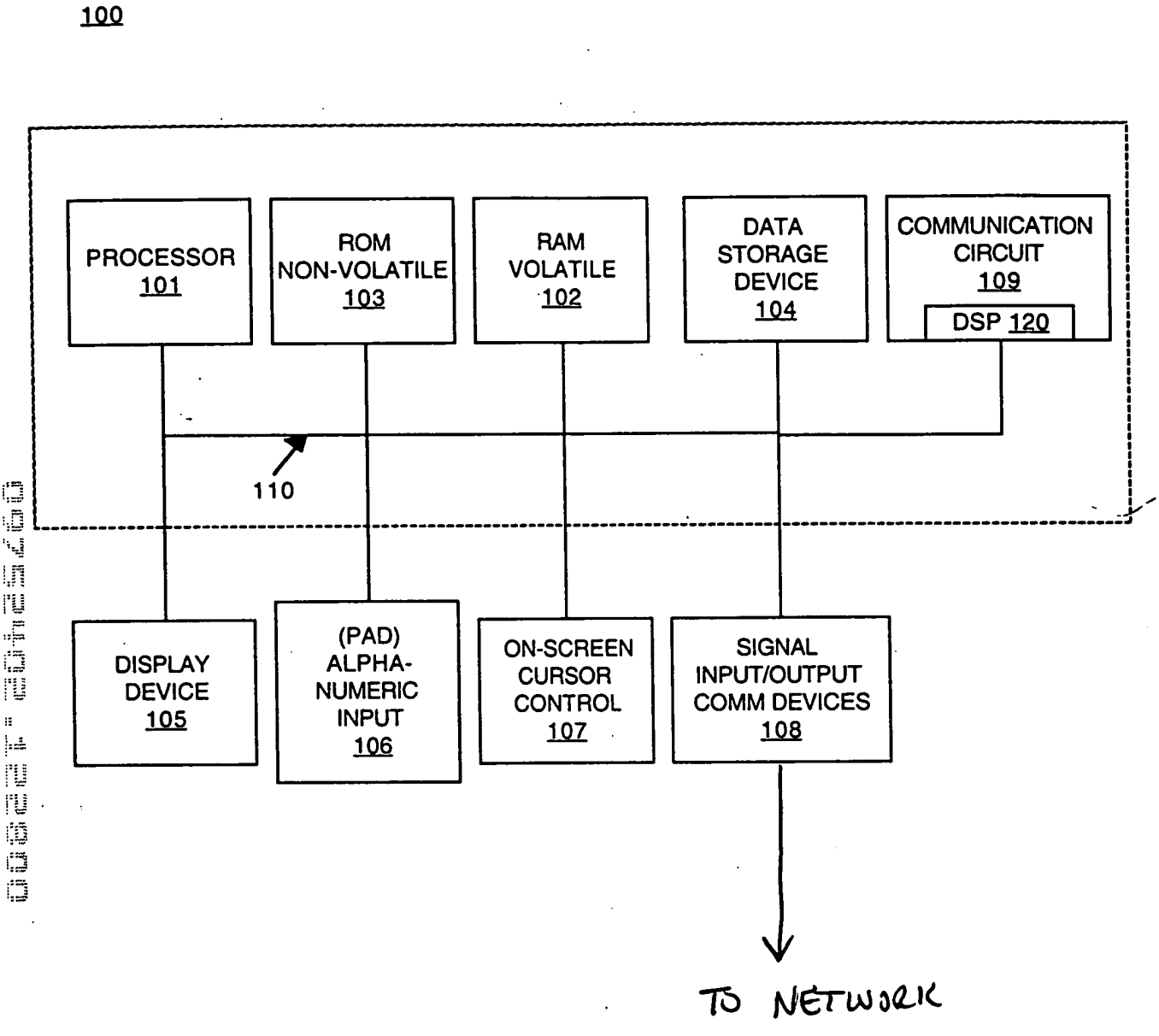

100
PROCESSOR
101
ROM
NON-VOLATILE
103
RAM
VOLATILE
102
DATA
STORAGE
DEVICE
104
COMMUNICATION
CIRCUIT
109
DSP 120
110
DISPLAY
DEVICE
105
(PAD)
ALPHA-
NUMERIC
INPUT
106
ON-SCREEN
CURSOR
CONTROL
107
SIGNAL
INPUT/OUTPUT
COMM DEVICES
108
TO NETWORK

FIGURE 3

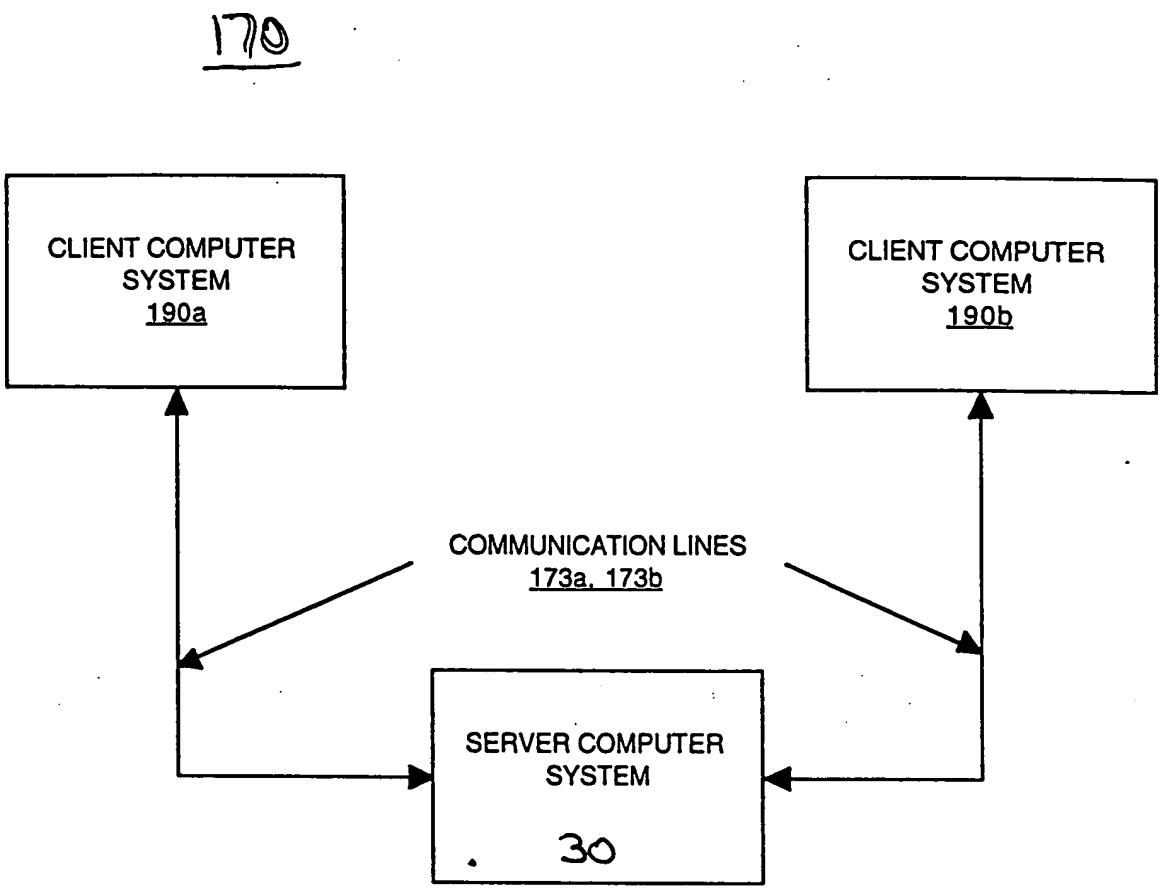

170
CLIENT COMPUTER SYSTEM 190a
CLIENT COMPUTER SYSTEM 190b
COMMUNICATION LINES 173a, 173b
SERVER COMPUTER SYSTEM 30

Figure 4

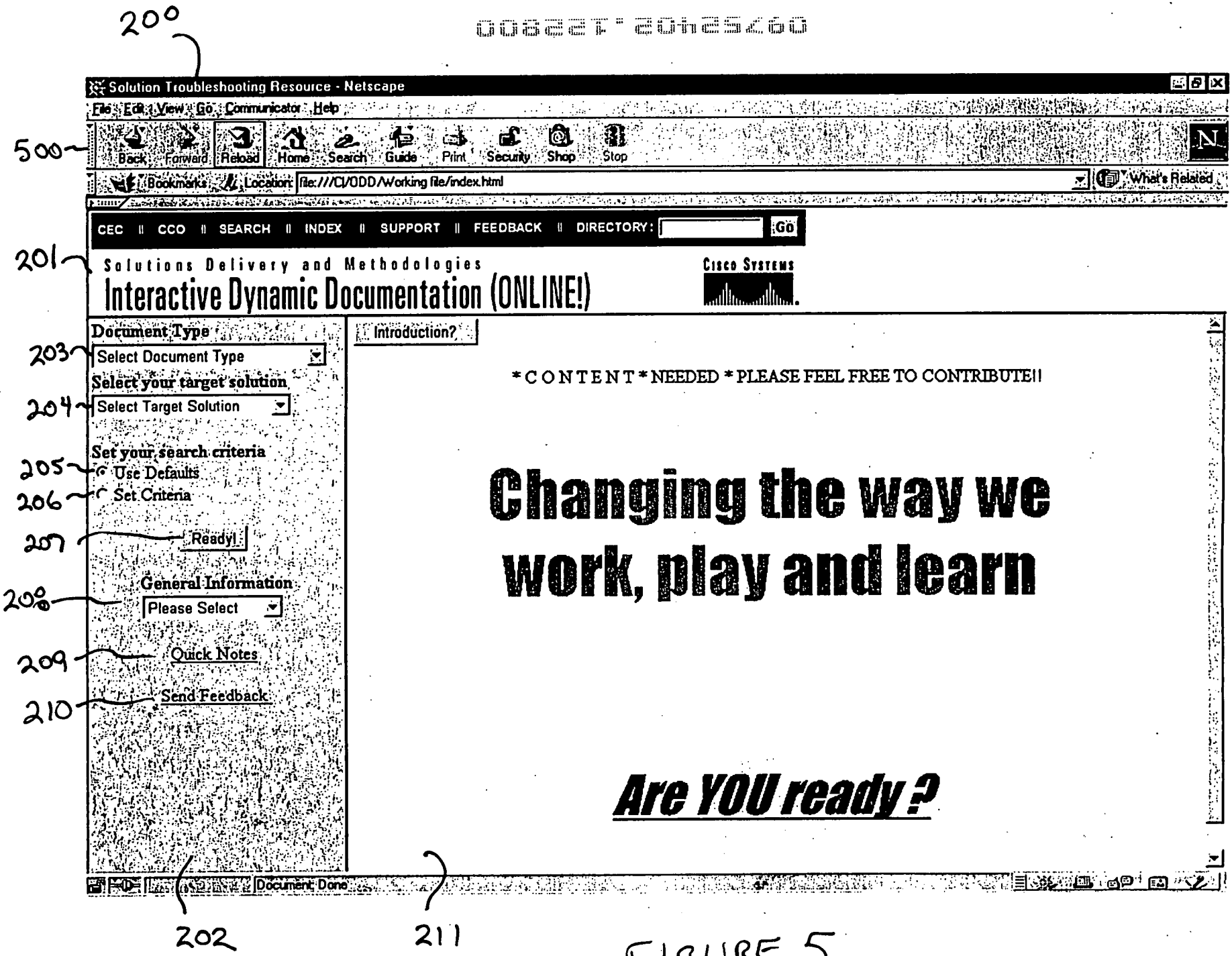


FIGURE 5

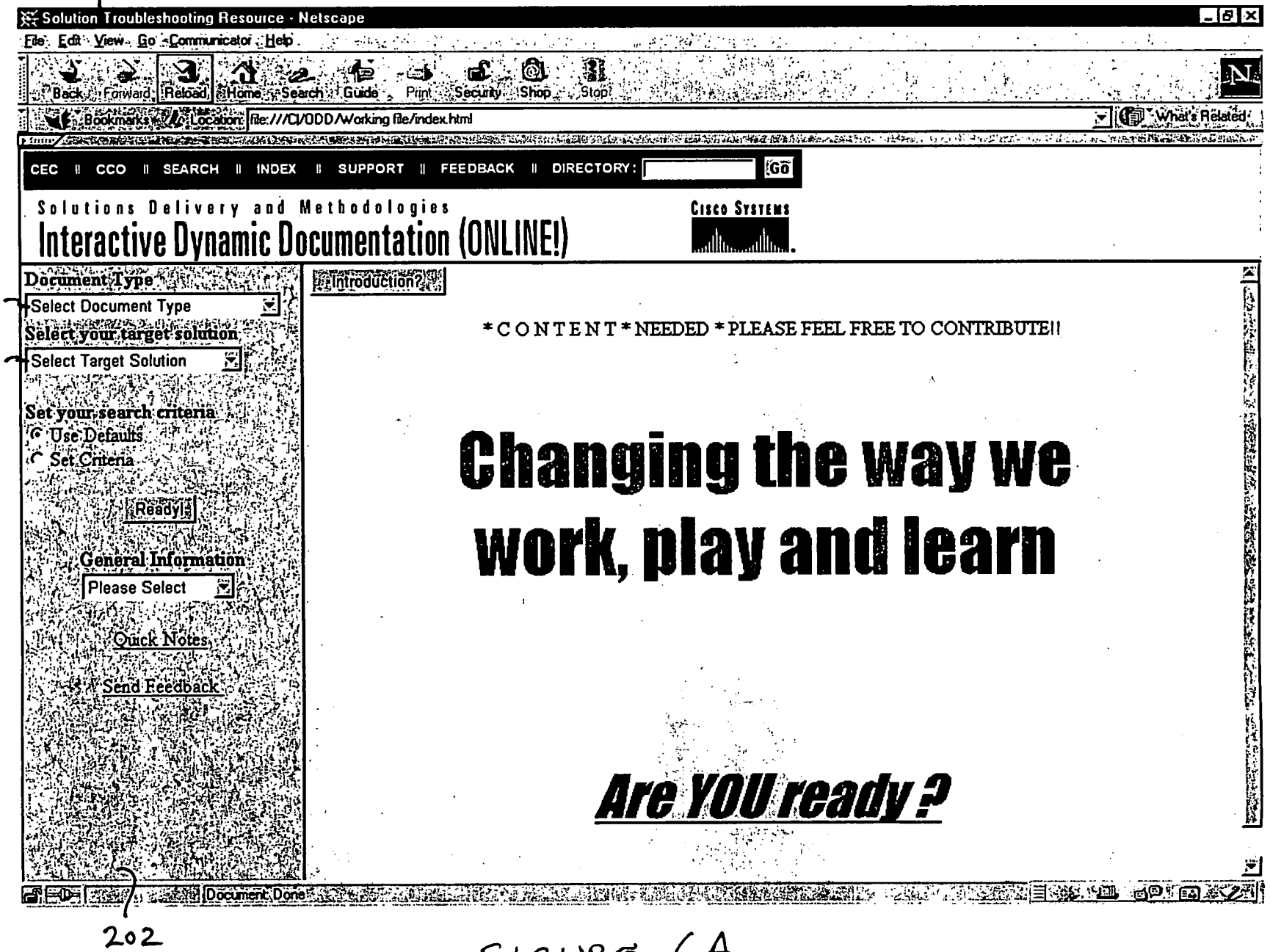

600
Solution Troubleshooting Resource - Netscape
File Edit View Go Communicator Help
Back Forward Reload Home Search Guide Print Security Shop Stop
Bookmarks Location: file:///C|/ODD/Working file/index.html
What's Related
CEC || CCO || SEARCH || INDEX || SUPPORT || FEEDBACK || DIRECTORY: Go
Solutions Delivery and Methodologies
Interactive Dynamic Documentation (ONLINE!)
Cisco Systems
Document Type
203
Select Document Type
Select your target solution
204
Select Target Solution
Set your search criteria
Use Defaults
Set Criteria
Ready!
General Information
Please Select
Quick Notes
Send Feedback
Introduction?
*CONTENT*NEEDED*PLEASE FEEL FREE TO CONTRIBUTE!!
Changing the way we work, play and learn
Are YOU ready?
Document: Done
202

FIGURE 6A

600

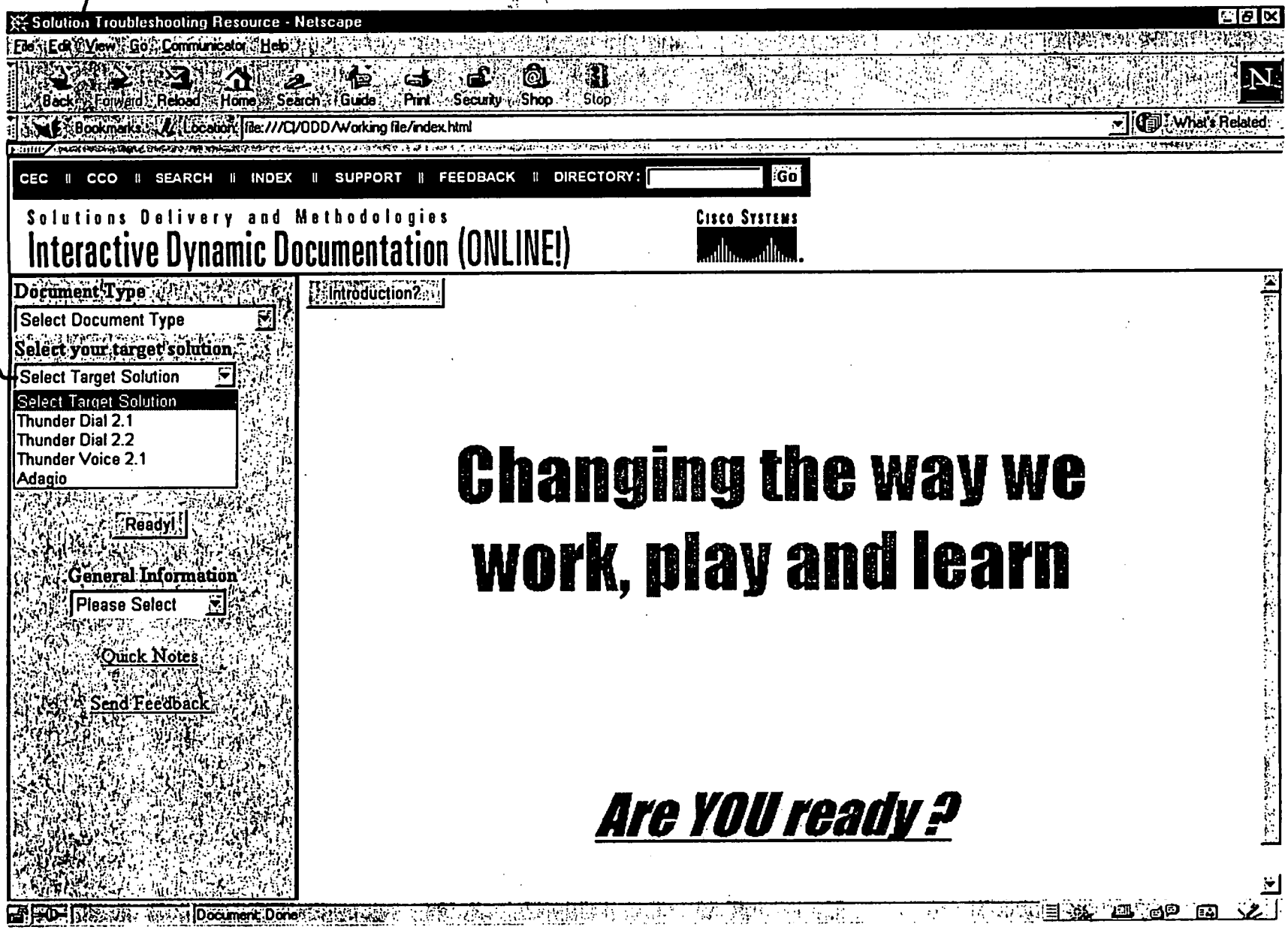


FIGURE 6B

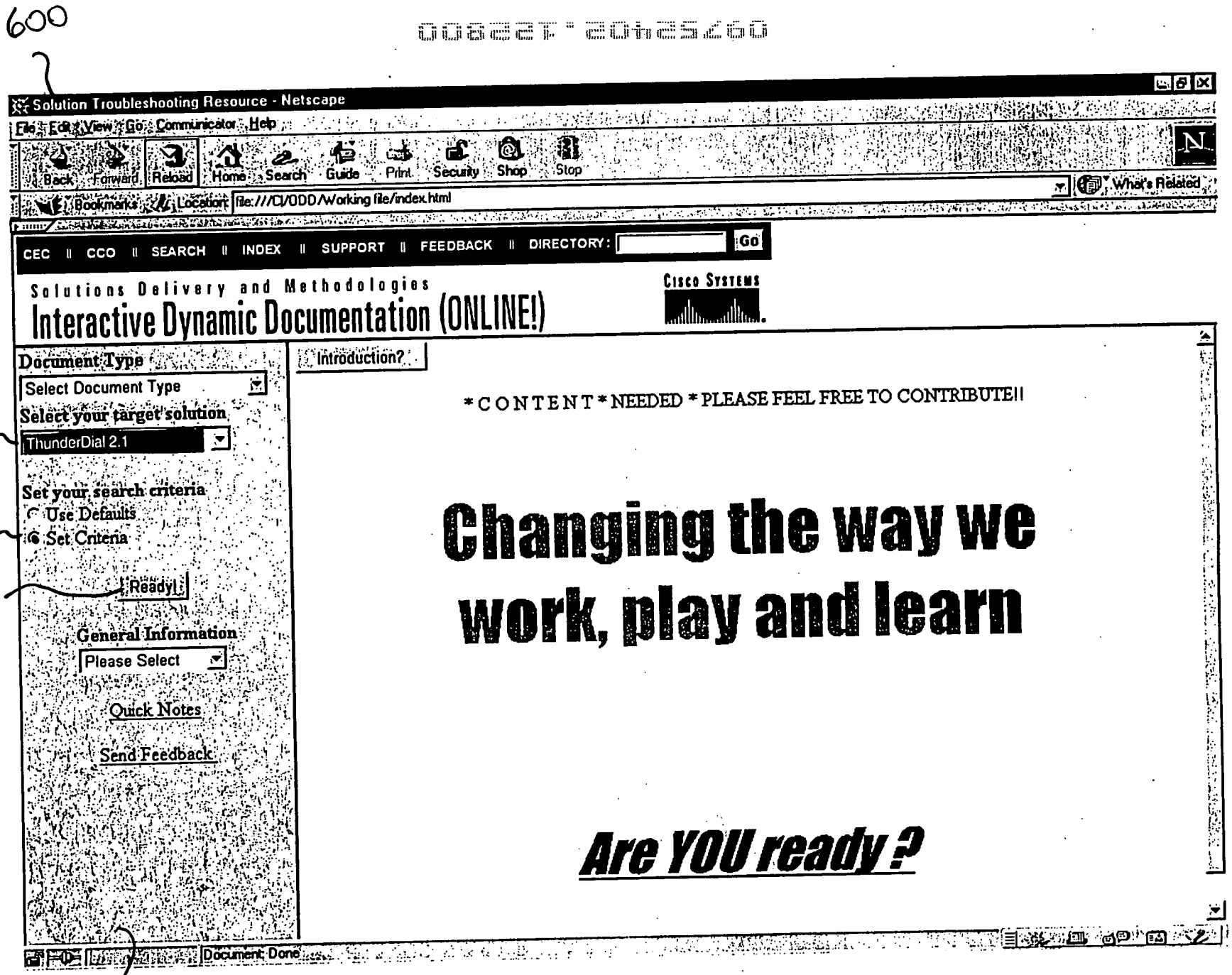


FIGURE 7

600

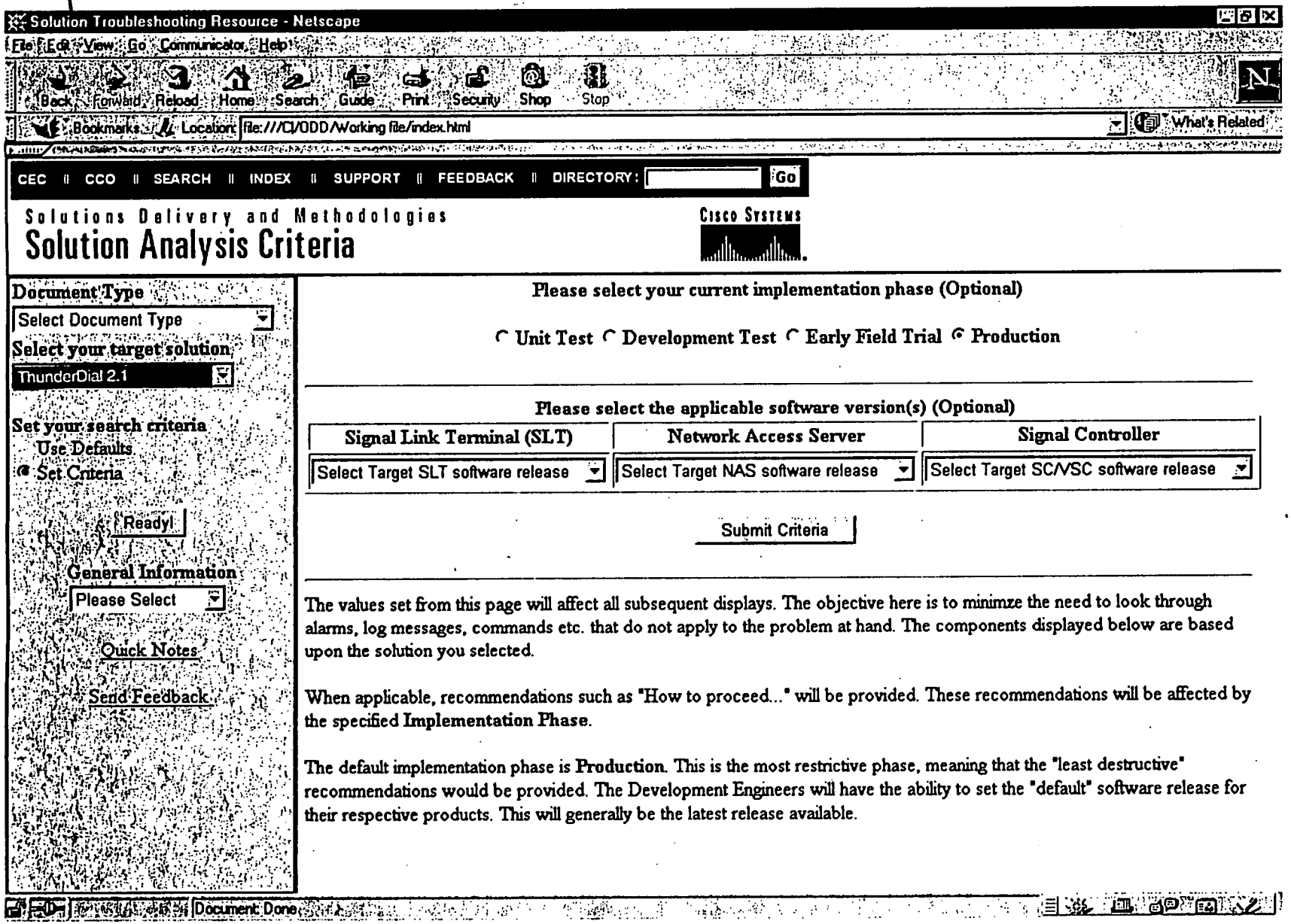
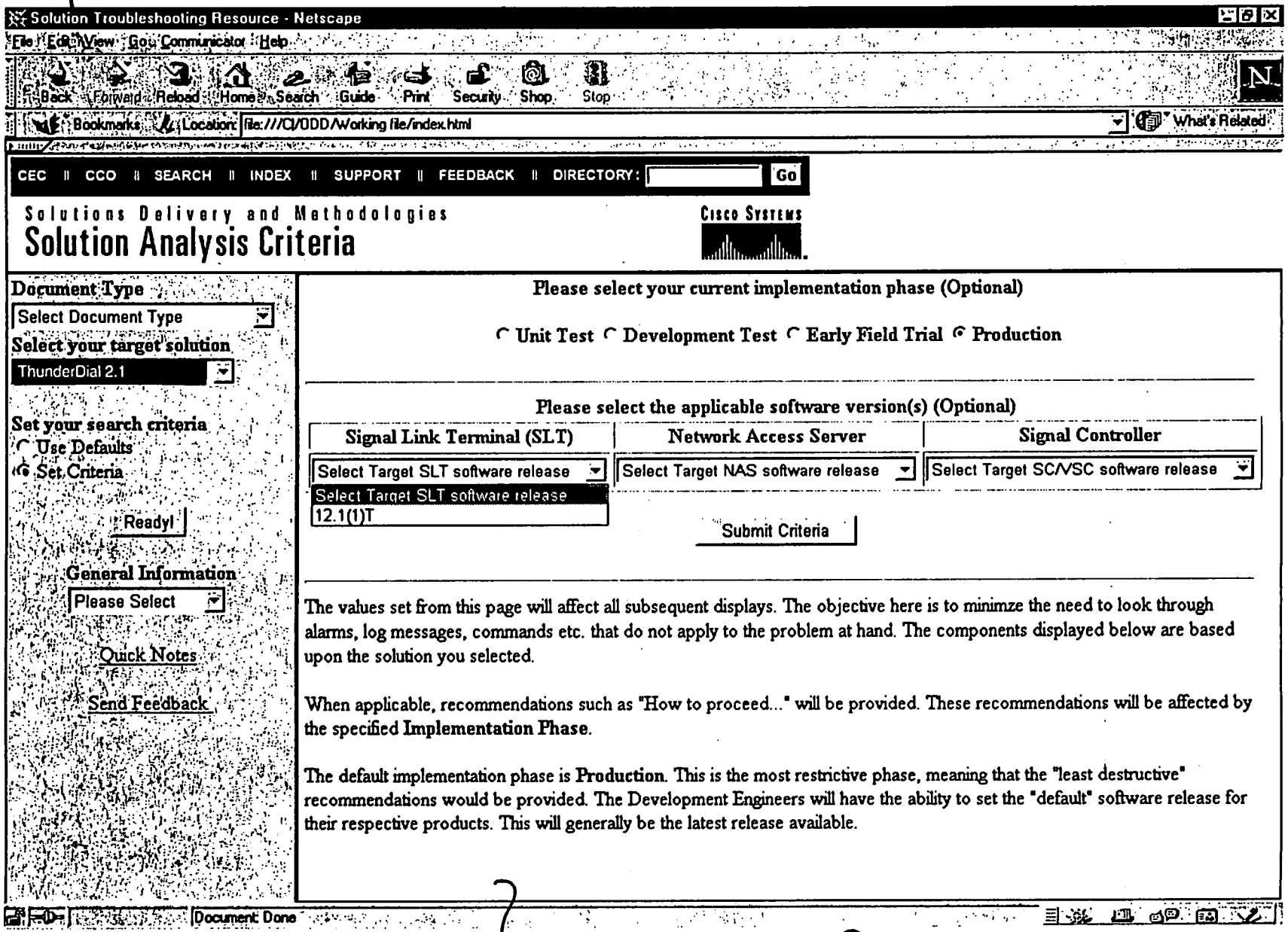

Solution Troubleshooting Resource - Netscape
File Edit View Go Communicator Help
Back Forward Reload Home Search Guide Print Security Shop Stop
Bookmarks Location: file:///C|/ODD/Working file/index.html
What's Related
CEC || CCO || SEARCH || INDEX || SUPPORT || FEEDBACK || DIRECTORY: Go
Solutions Delivery and Methodologies
Solution Analysis Criteria
Cisco Systems
Document Type
Select Document Type
Select your target solution
ThunderDial 2.1
Set your search criteria
Use Defaults
Set Criteria
Ready!
General Information
Please Select
Quick Notes
Send Feedback
Please select your current implementation phase (Optional)
Unit Test Development Test Early Field Trial Production
Please select the applicable software version(s) (Optional)
Signal Link Terminal (SLT)
Network Access Server
Signal Controller
Select Target SLT software release
Select Target NAS software release
Select Target SC/VSC software release
Submit Criteria
The values set from this page will affect all subsequent displays. The objective here is to minimze the need to look through alarms, log messages, commands etc. that do not apply to the problem at hand. The components displayed below are based upon the solution you selected.
When applicable, recommendations such as "How to proceed..." will be provided. These recommendations will be affected by the specified Implementation Phase.
The default implementation phase is Production. This is the most restrictive phase, meaning that the "least destructive" recommendations would be provided. The Development Engineers will have the ability to set the "default" software release for their respective products. This will generally be the latest release available.
Document: Done

FIGURE 8

600



211

FIGURE 9

600

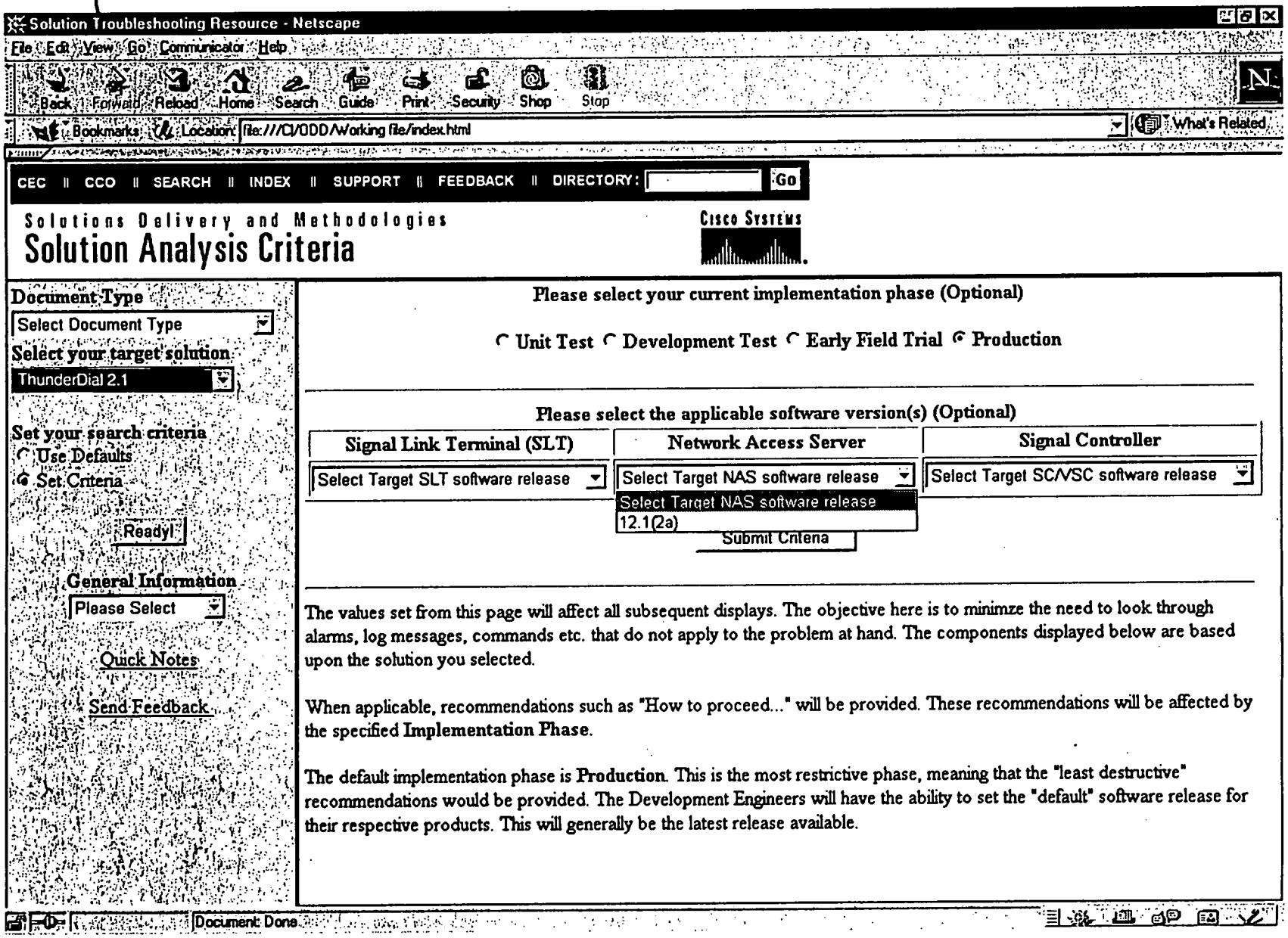


FIGURE 10

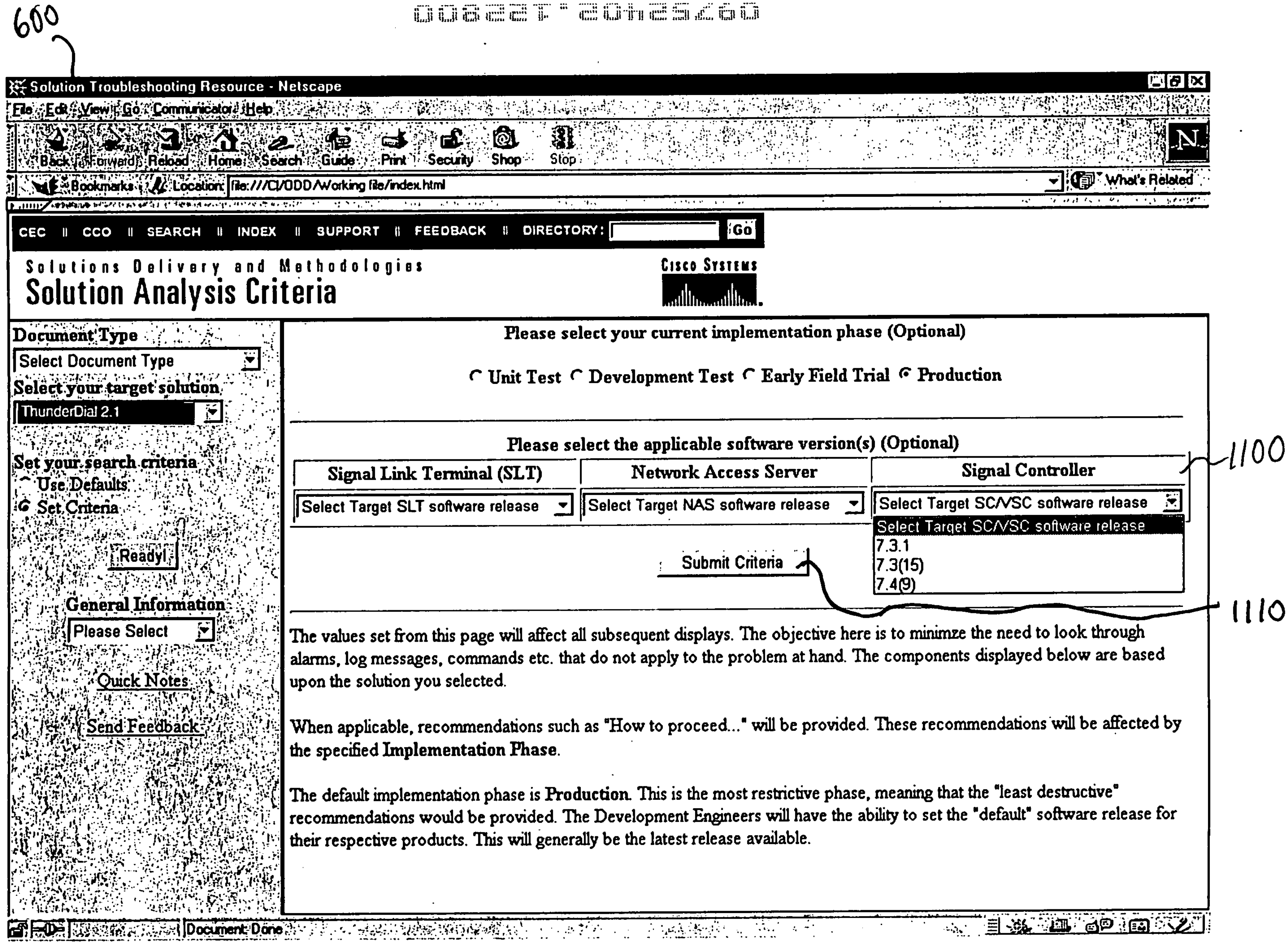

600
Solution Troubleshooting Resource - Netscape
File Edit View Go Communicator Help
Back Forward Reload Home Search Guide Print Security Shop Stop
Bookmarks Location: file:///C|/ODD/Working file/index.html
What's Related
CEC || CCO || SEARCH || INDEX || SUPPORT || FEEDBACK || DIRECTORY: Go
Solutions Delivery and Methodologies
Solution Analysis Criteria
Cisco Systems
Document Type
Select Document Type
Select your target solution
ThunderDial 2.1
Set your search criteria
Use Defaults
Set Criteria
Ready!
General Information
Please Select
Quick Notes
Send Feedback
Please select your current implementation phase (Optional)
Unit Test
Development Test
Early Field Trial
Production
Please select the applicable software version(s) (Optional)
Signal Link Terminal (SLT)
Network Access Server
Signal Controller
Select Target SLT software release
Select Target NAS software release
Select Target SC/VSC software release
Select Target SC/VSC software release
7.3.1
7.3(15)
7.4(9)
Submit Criteria
1100
1110
The values set from this page will affect all subsequent displays. The objective here is to minimze the need to look through alarms, log messages, commands etc. that do not apply to the problem at hand. The components displayed below are based upon the solution you selected.
When applicable, recommendations such as "How to proceed..." will be provided. These recommendations will be affected by the specified Implementation Phase.
The default implementation phase is Production. This is the most restrictive phase, meaning that the "least destructive" recommendations would be provided. The Development Engineers will have the ability to set the "default" software release for their respective products. This will generally be the latest release available.
Document: Done

FIGURE 11

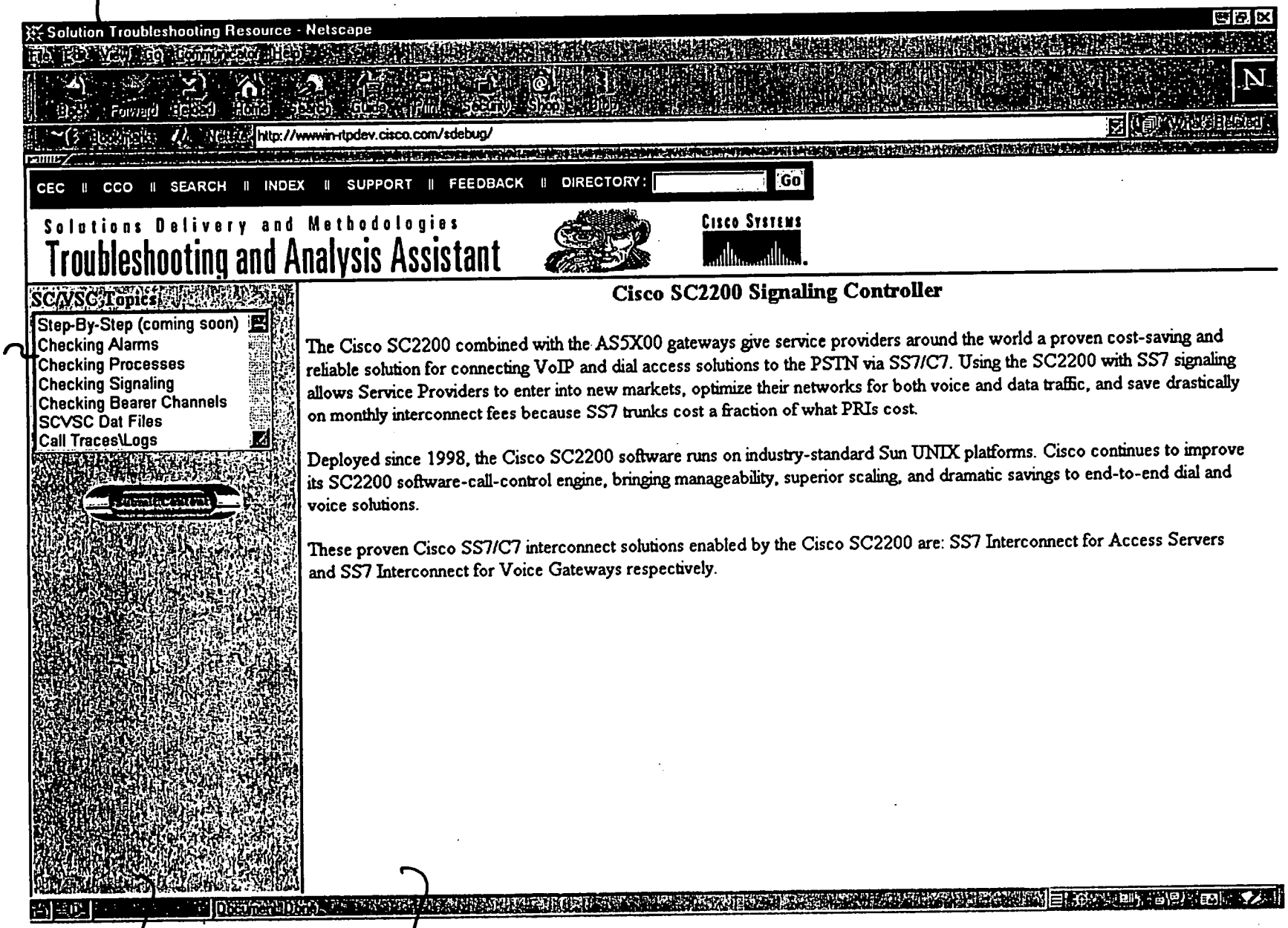

1200
Solution Troubleshooting Resource - Netscape
http://wwwin-rtpdev.cisco.com/sdebug/
CEC || CCO || SEARCH || INDEX || SUPPORT || FEEDBACK || DIRECTORY: Go
Solutions Delivery and Methodologies
Troubleshooting and Analysis Assistant
Cisco Systems
SC/VSC Topics
Step-By-Step (coming soon)
Checking Alarms
Checking Processes
Checking Signaling
Checking Bearer Channels
SCVSC Dat Files
Call Traces\Logs
1210
Cisco SC2200 Signaling Controller
The Cisco SC2200 combined with the AS5X00 gateways give service providers around the world a proven cost-saving and reliable solution for connecting VoIP and dial access solutions to the PSTN via SS7/C7. Using the SC2200 with SS7 signaling allows Service Providers to enter into new markets, optimize their networks for both voice and data traffic, and save drastically on monthly interconnect fees because SS7 trunks cost a fraction of what PRIs cost.
Deployed since 1998, the Cisco SC2200 software runs on industry-standard Sun UNIX platforms. Cisco continues to improve its SC2200 software-call-control engine, bringing manageability, superior scaling, and dramatic savings to end-to-end dial and voice solutions.
These proven Cisco SS7/C7 interconnect solutions enabled by the Cisco SC2200 are: SS7 Interconnect for Access Servers and SS7 Interconnect for Voice Gateways respectively.
202
211

FIGURE 12

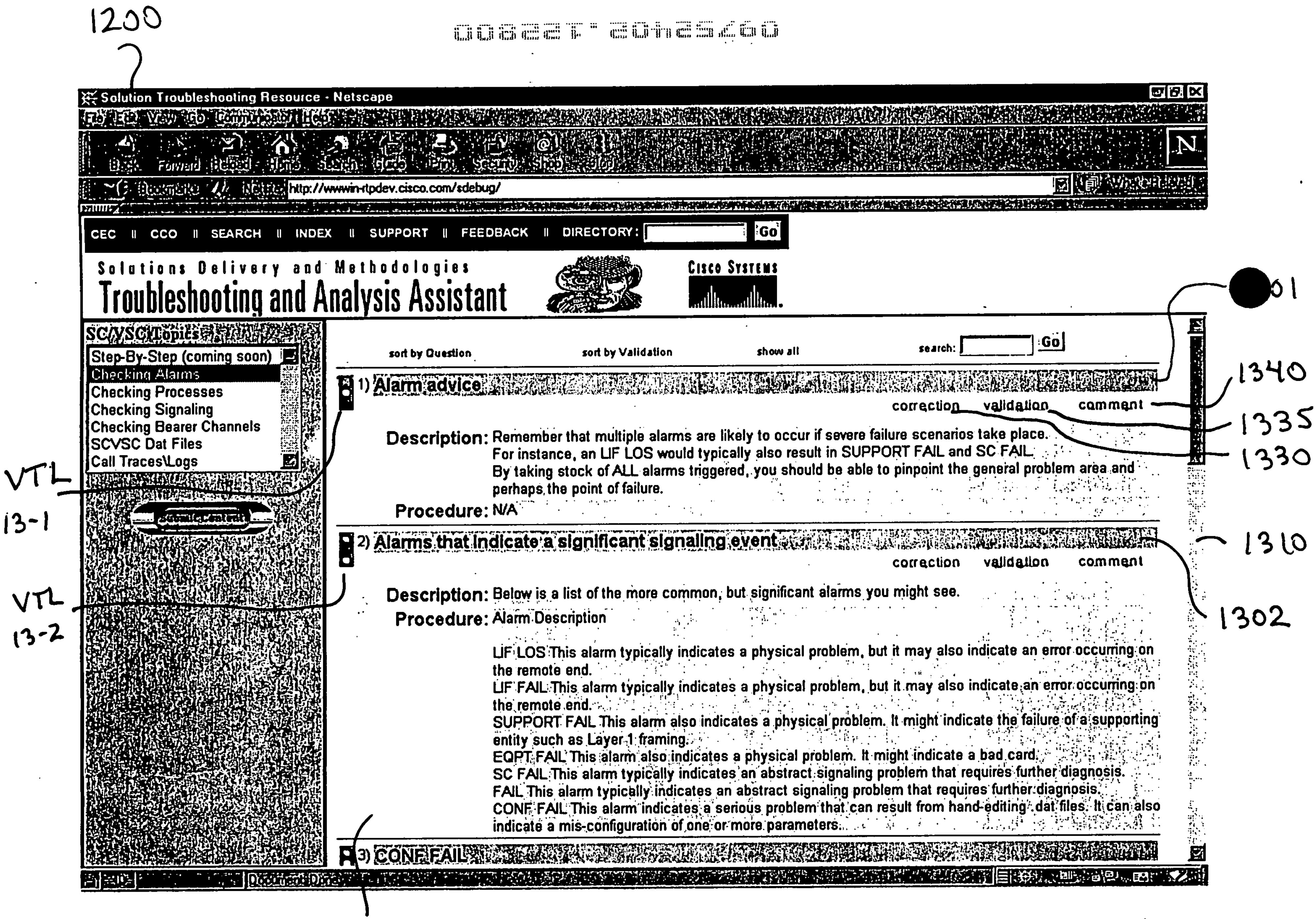

1200
Solution Troubleshooting Resource - Netscape
http://wwwin-rtpdev.cisco.com/sdebug/
CEC || CCO || SEARCH || INDEX || SUPPORT || FEEDBACK || DIRECTORY: Go
Solutions Delivery and Methodologies
Troubleshooting and Analysis Assistant
Cisco Systems
SC/VSC Topics
Step-By-Step (coming soon)
Checking Alarms
Checking Processes
Checking Signaling
Checking Bearer Channels
SCVSC Dat Files
Call Traces\Logs
sort by Question
sort by Validation
show all
search: Go
1) Alarm advice
correction validation comment
Description: Remember that multiple alarms are likely to occur if severe failure scenarios take place.
For instance, an LIF LOS would typically also result in SUPPORT FAIL and SC FAIL.
By taking stock of ALL alarms triggered, you should be able to pinpoint the general problem area and perhaps the point of failure.
Procedure: N/A
2) Alarms that indicate a significant signaling event
correction validation comment
Description: Below is a list of the more common, but significant alarms you might see.
Procedure: Alarm Description
LIF LOS This alarm typically indicates a physical problem, but it may also indicate an error occurring on the remote end.
LIF FAIL This alarm typically indicates a physical problem, but it may also indicate an error occurring on the remote end.
SUPPORT FAIL This alarm also indicates a physical problem. It might indicate the failure of a supporting entity such as Layer 1 framing.
EQPT FAIL This alarm also indicates a physical problem. It might indicate a bad card.
SC FAIL This alarm typically indicates an abstract signaling problem that requires further diagnosis.
FAIL This alarm typically indicates an abstract signaling problem that requires further diagnosis.
CONF FAIL This alarm indicates a serious problem that can result from hand-editing .dat files. It can also indicate a mis-configuration of one or more parameters.
3) CONF FAIL
01
1340
1335
1330
1310
1302
VTL 13-1
VTL 13-2
211

FIGURE 13

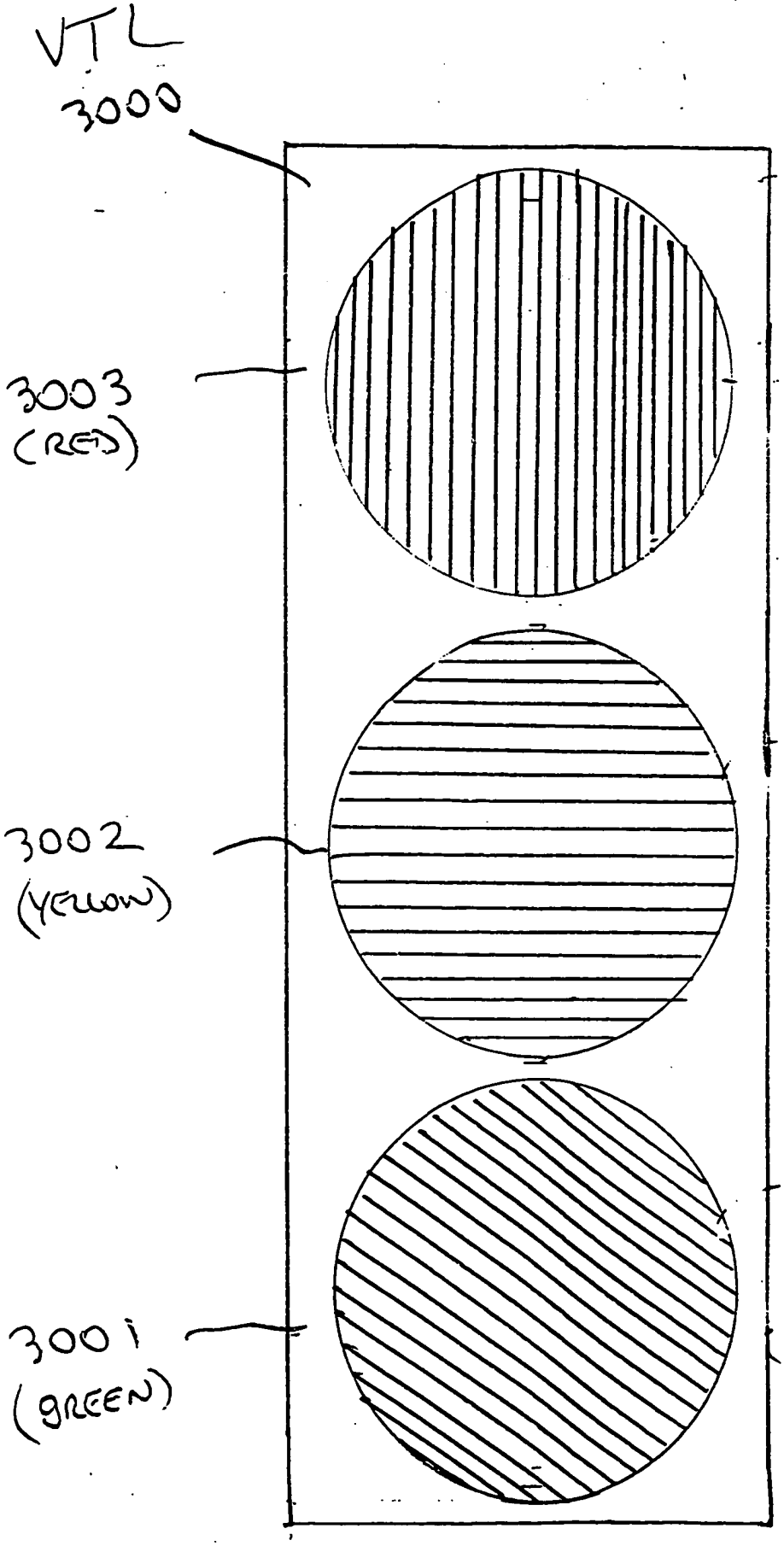


FIGURE 14

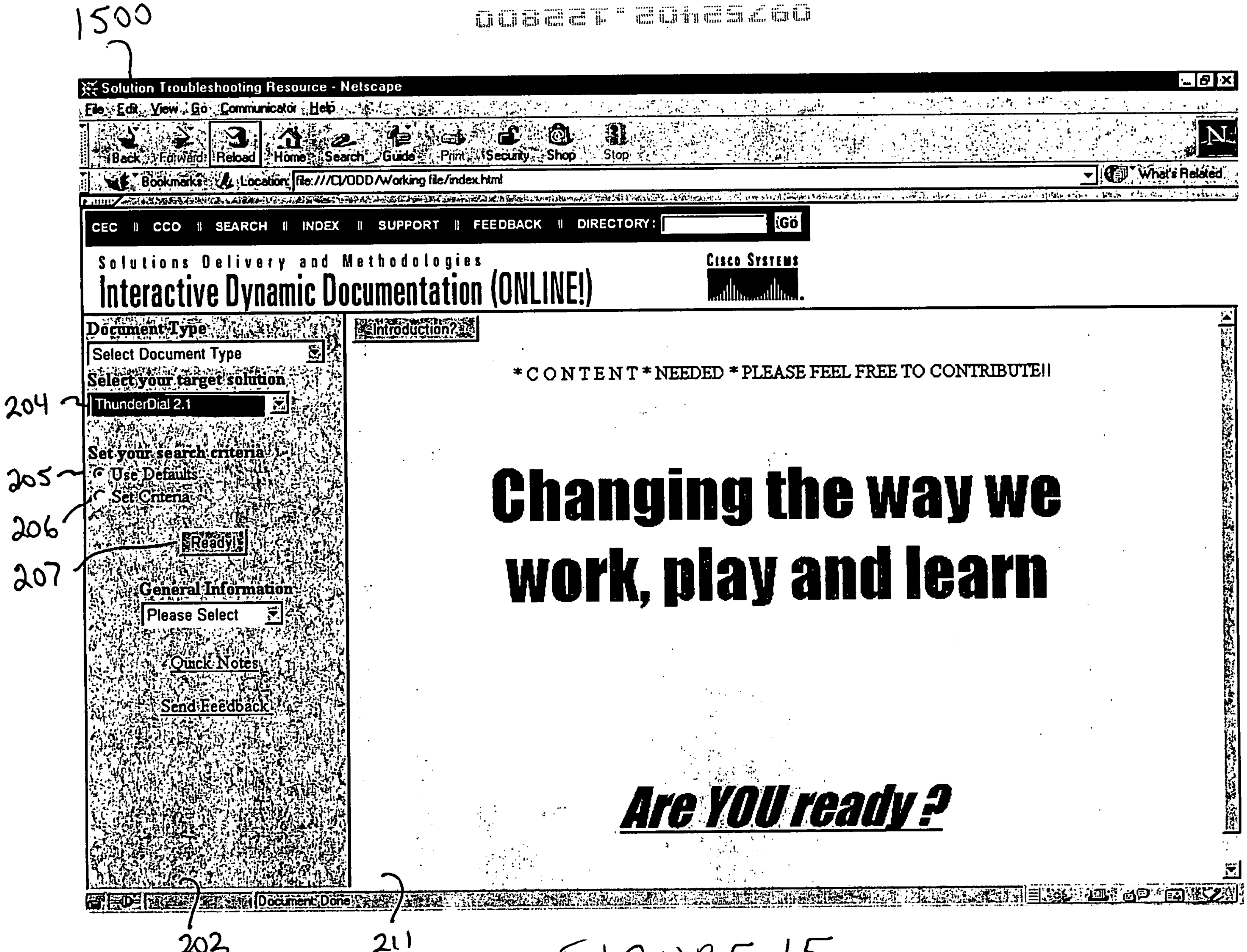

1500
Solution Troubleshooting Resource - Netscape
File Edit View Go Communicator Help
Back Forward Reload Home Search Guide Print Security Shop Stop
Bookmarks Location: file:///C|/ODD/Working file/index.html
What's Related
CEC || CCO || SEARCH || INDEX || SUPPORT || FEEDBACK || DIRECTORY:
Go
Solutions Delivery and Methodologies
Interactive Dynamic Documentation (ONLINE!)
Cisco Systems
Document Type
Select Document Type
Select your target solution
ThunderDial 2.1
Set your search criteria
Use Defaults
Set Criteria
Ready!
General Information
Please Select
Quick Notes
Send Feedback
Introduction?
*CONTENT*NEEDED*PLEASE FEEL FREE TO CONTRIBUTE!!
Changing the way we work, play and learn
Are YOU ready?
Document: Done
204
205
206
207
202
211

FIGURE 15

00822T"20425260

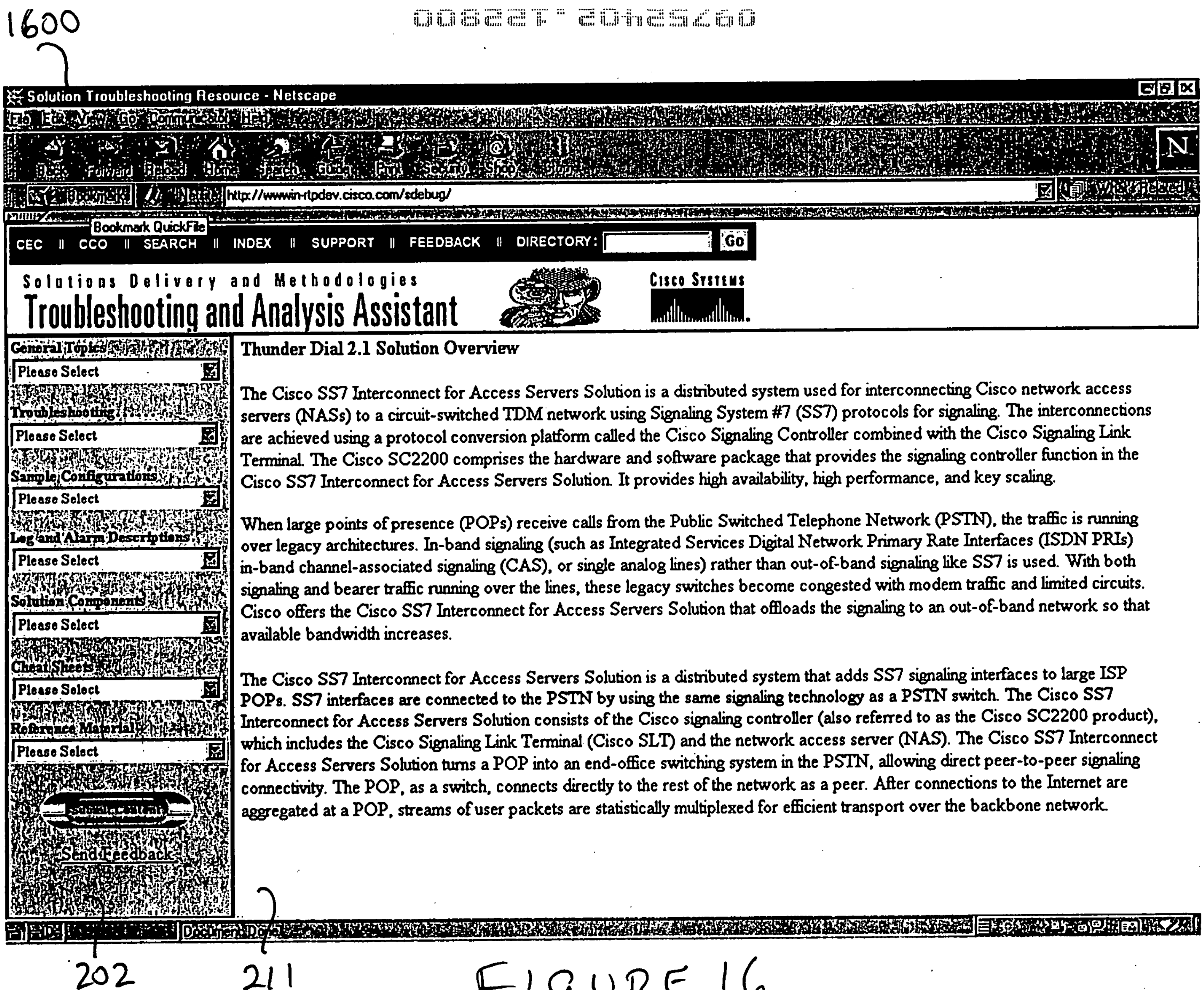

1600
Solution Troubleshooting Resource - Netscape
http://wwwin-rtpdev.cisco.com/sdebug/
Bookmark QuickFile
CEC || CCO || SEARCH || INDEX || SUPPORT || FEEDBACK || DIRECTORY:
Go
Solutions Delivery and Methodologies
Troubleshooting and Analysis Assistant
Cisco Systems
General Topics
Please Select
Troubleshooting
Please Select
Sample Configurations
Please Select
Log and Alarm Descriptions
Please Select
Solution Components
Please Select
Cheat Sheets
Please Select
Reference Material
Please Select
Send Feedback
Thunder Dial 2.1 Solution Overview
The Cisco SS7 Interconnect for Access Servers Solution is a distributed system used for interconnecting Cisco network access servers (NASs) to a circuit-switched TDM network using Signaling System #7 (SS7) protocols for signaling. The interconnections are achieved using a protocol conversion platform called the Cisco Signaling Controller combined with the Cisco Signaling Link Terminal. The Cisco SC2200 comprises the hardware and software package that provides the signaling controller function in the Cisco SS7 Interconnect for Access Servers Solution. It provides high availability, high performance, and key scaling.
When large points of presence (POPs) receive calls from the Public Switched Telephone Network (PSTN), the traffic is running over legacy architectures. In-band signaling (such as Integrated Services Digital Network Primary Rate Interfaces (ISDN PRIs) in-band channel-associated signaling (CAS), or single analog lines) rather than out-of-band signaling like SS7 is used. With both signaling and bearer traffic running over the lines, these legacy switches become congested with modem traffic and limited circuits. Cisco offers the Cisco SS7 Interconnect for Access Servers Solution that offloads the signaling to an out-of-band network so that available bandwidth increases.
The Cisco SS7 Interconnect for Access Servers Solution is a distributed system that adds SS7 signaling interfaces to large ISP POPs. SS7 interfaces are connected to the PSTN by using the same signaling technology as a PSTN switch. The Cisco SS7 Interconnect for Access Servers Solution consists of the Cisco signaling controller (also referred to as the Cisco SC2200 product), which includes the Cisco Signaling Link Terminal (Cisco SLT) and the network access server (NAS). The Cisco SS7 Interconnect for Access Servers Solution turns a POP into an end-office switching system in the PSTN, allowing direct peer-to-peer signaling connectivity. The POP, as a switch, connects directly to the rest of the network as a peer. After connections to the Internet are aggregated at a POP, streams of user packets are statistically multiplexed for efficient transport over the backbone network.
202
211

FIGURE 16

1600

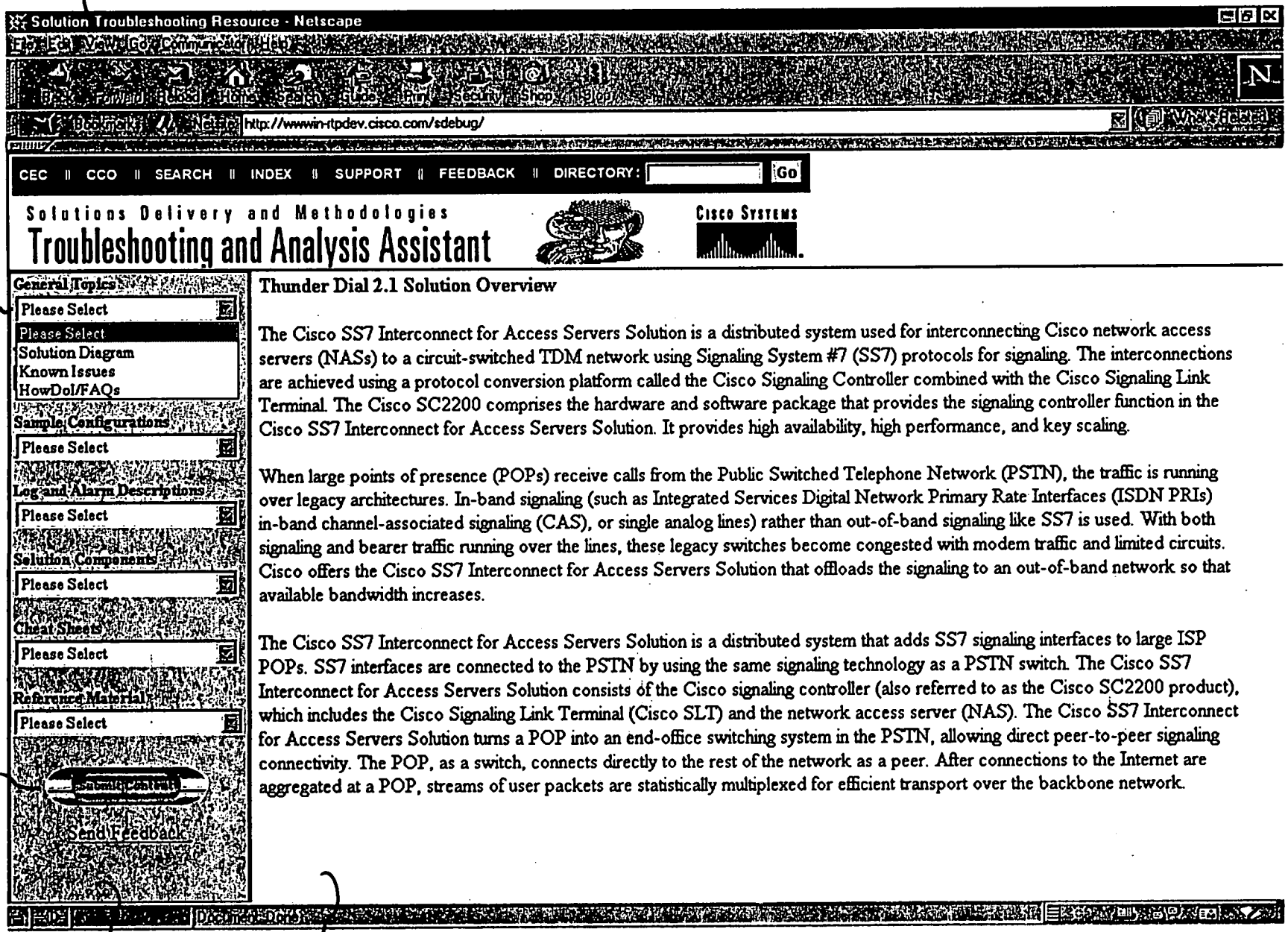


FIGURE 17

1800

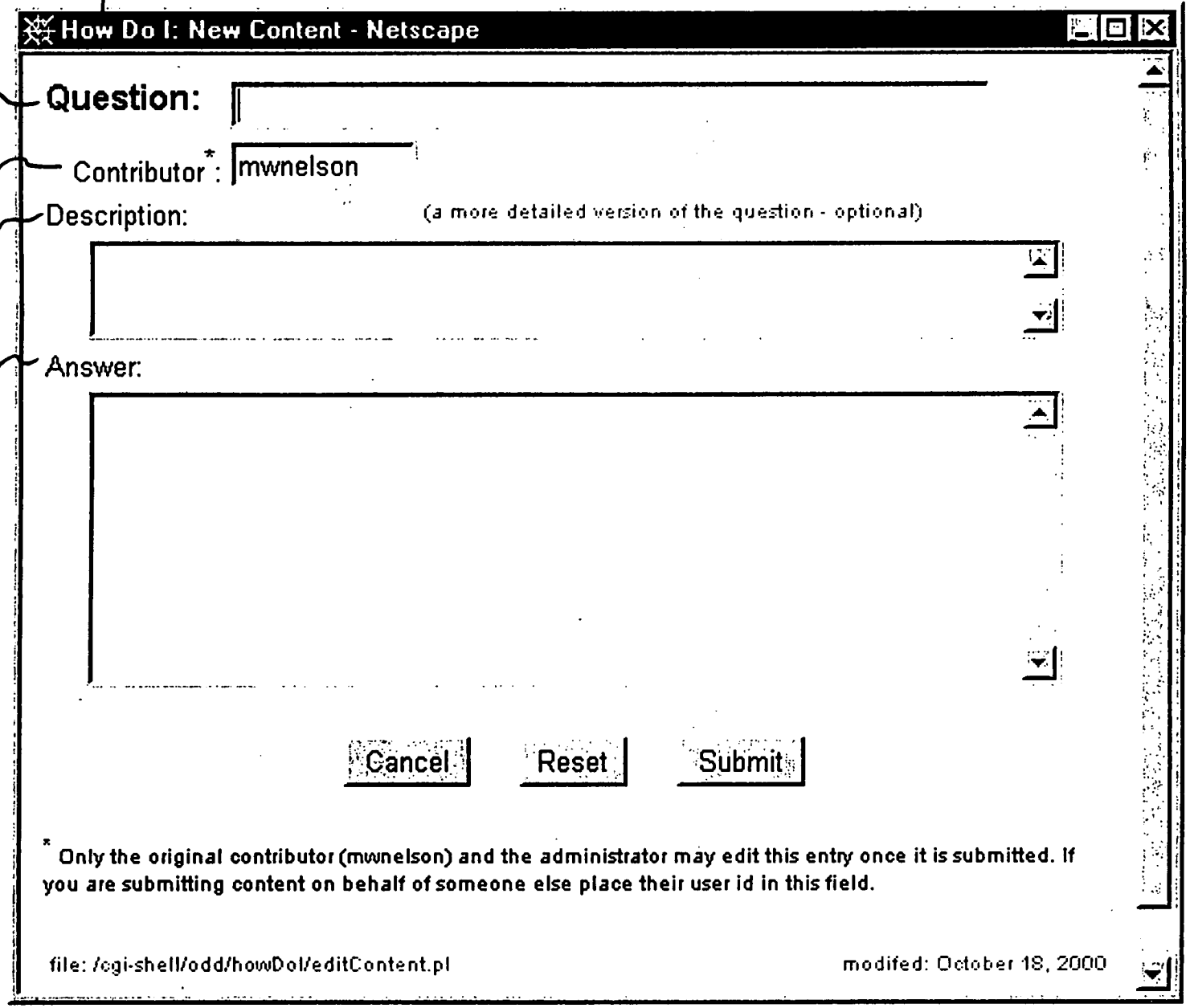


FIGURE 18

1800

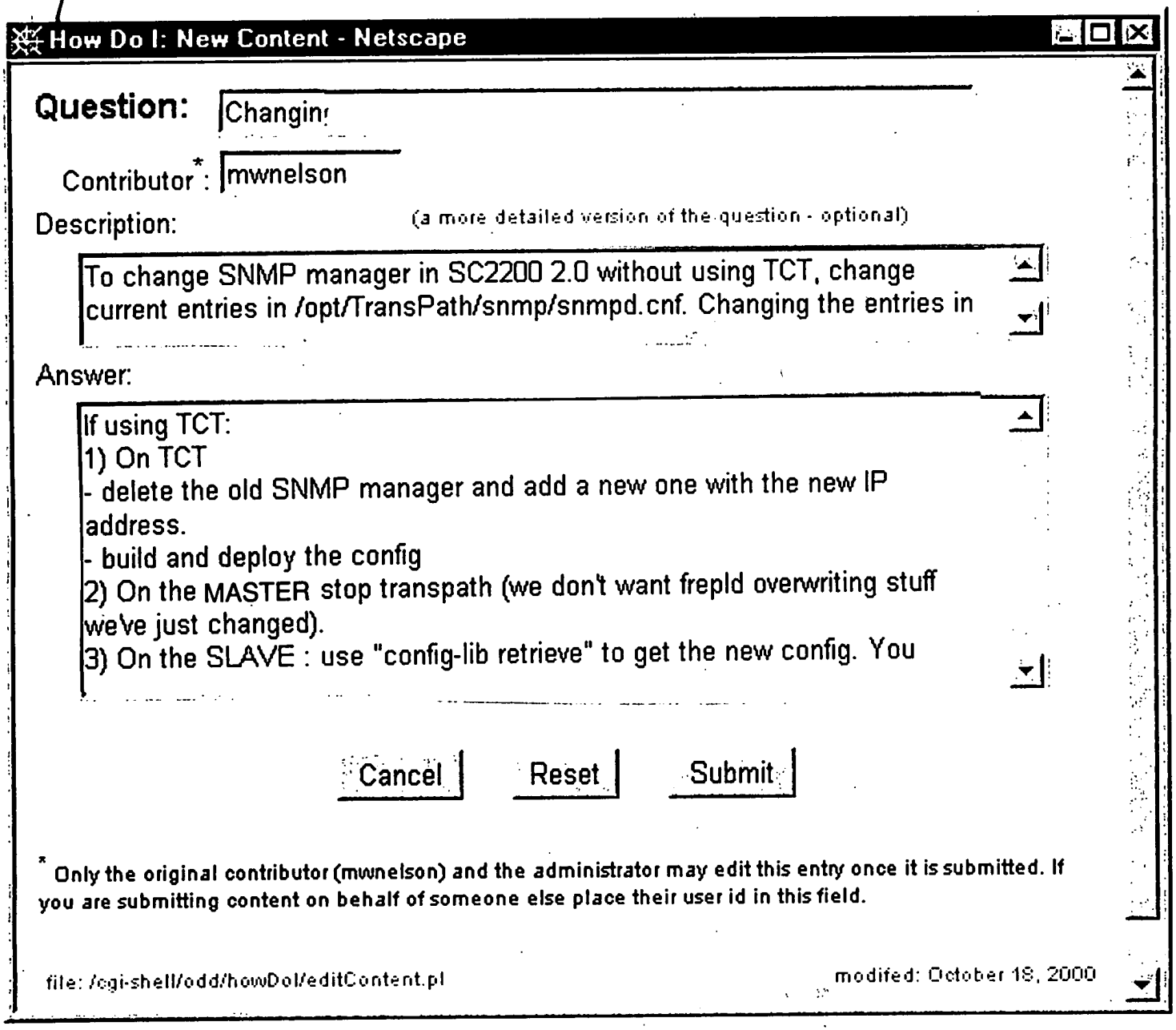
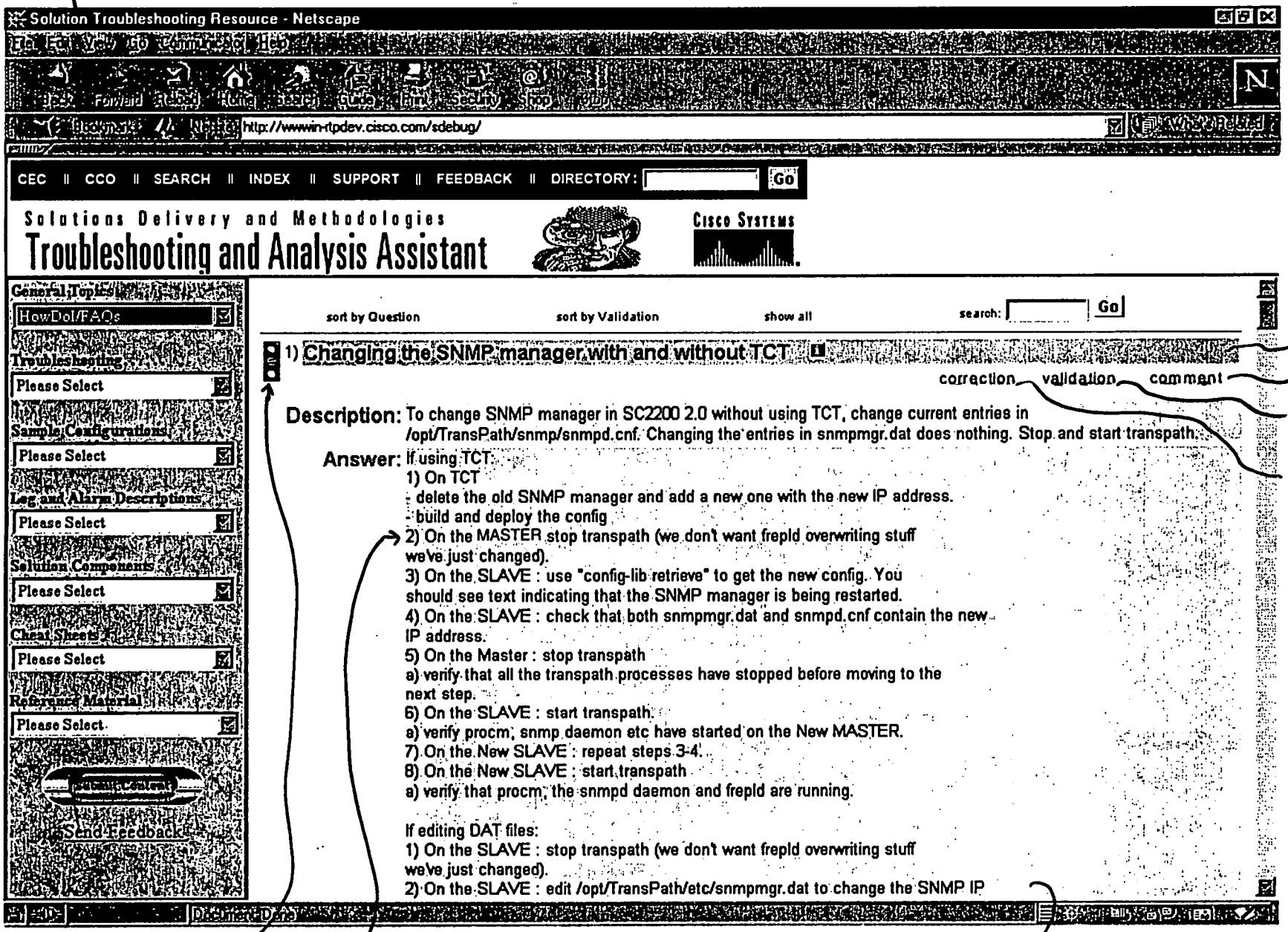


FIGURE 19

2000



2020
2040
2035
2030
2010
2050
211

FIGURE 20

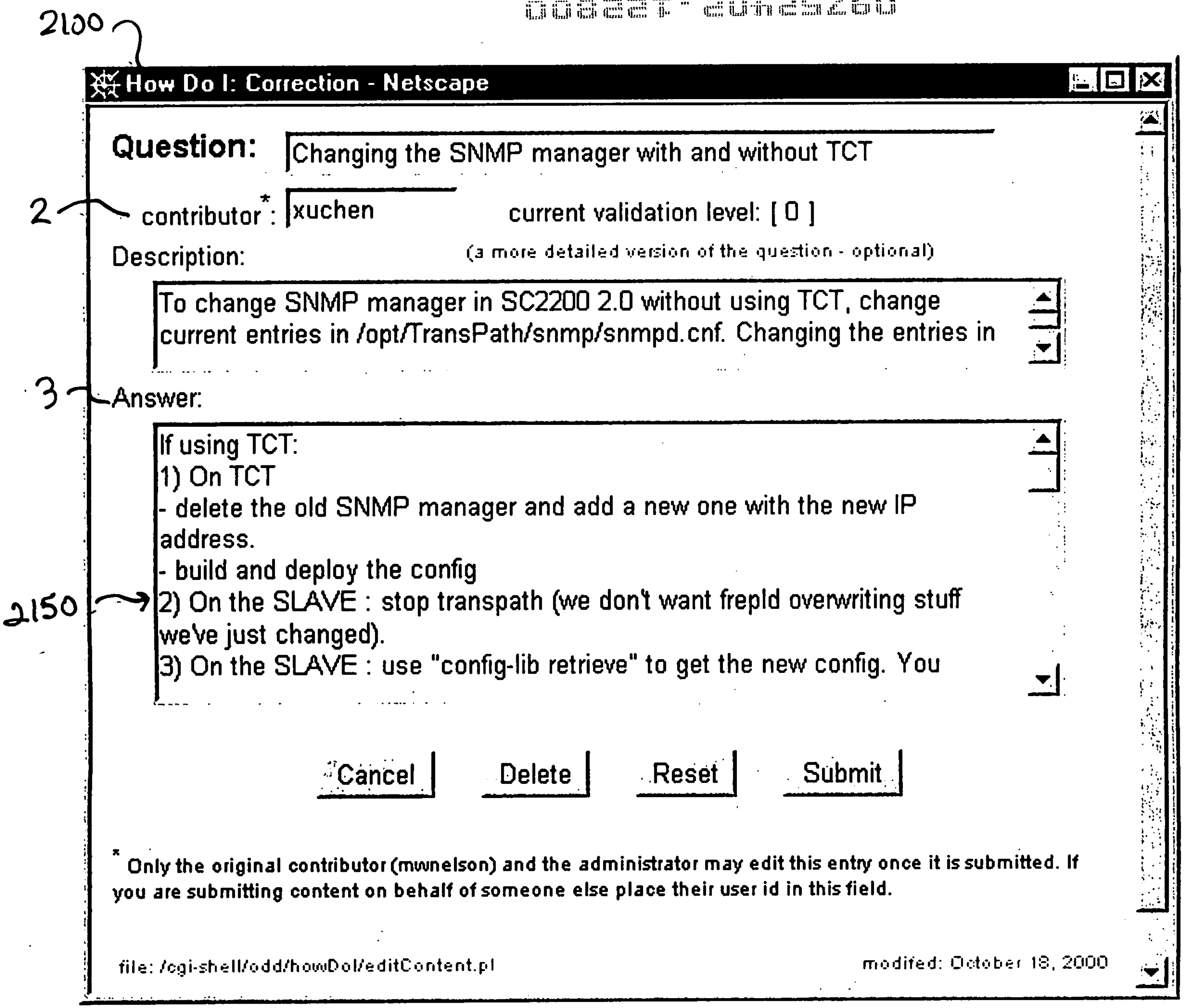

2100
How Do I: Correction - Netscape
Question:
Changing the SNMP manager with and without TCT
2
contributor*:
xuchen
current validation level: [0]
Description:
(a more detailed version of the question - optional)
To change SNMP manager in SC2200 2.0 without using TCT, change current entries in /opt/TransPath/snmp/snmpd.cnf. Changing the entries in
3
Answer:
If using TCT:
1) On TCT
- delete the old SNMP manager and add a new one with the new IP address.
- build and deploy the config
2150
2) On the SLAVE : stop transpath (we don't want frepld overwriting stuff we've just changed).
3) On the SLAVE : use "config-lib retrieve" to get the new config. You
Cancel
Delete
Reset
Submit
* Only the original contributor (mwnelson) and the administrator may edit this entry once it is submitted. If you are submitting content on behalf of someone else place their user id in this field.
file: /cgi-shell/odd/howDoI/editContent.pl
modifed: October 18, 2000

FIGURE 21

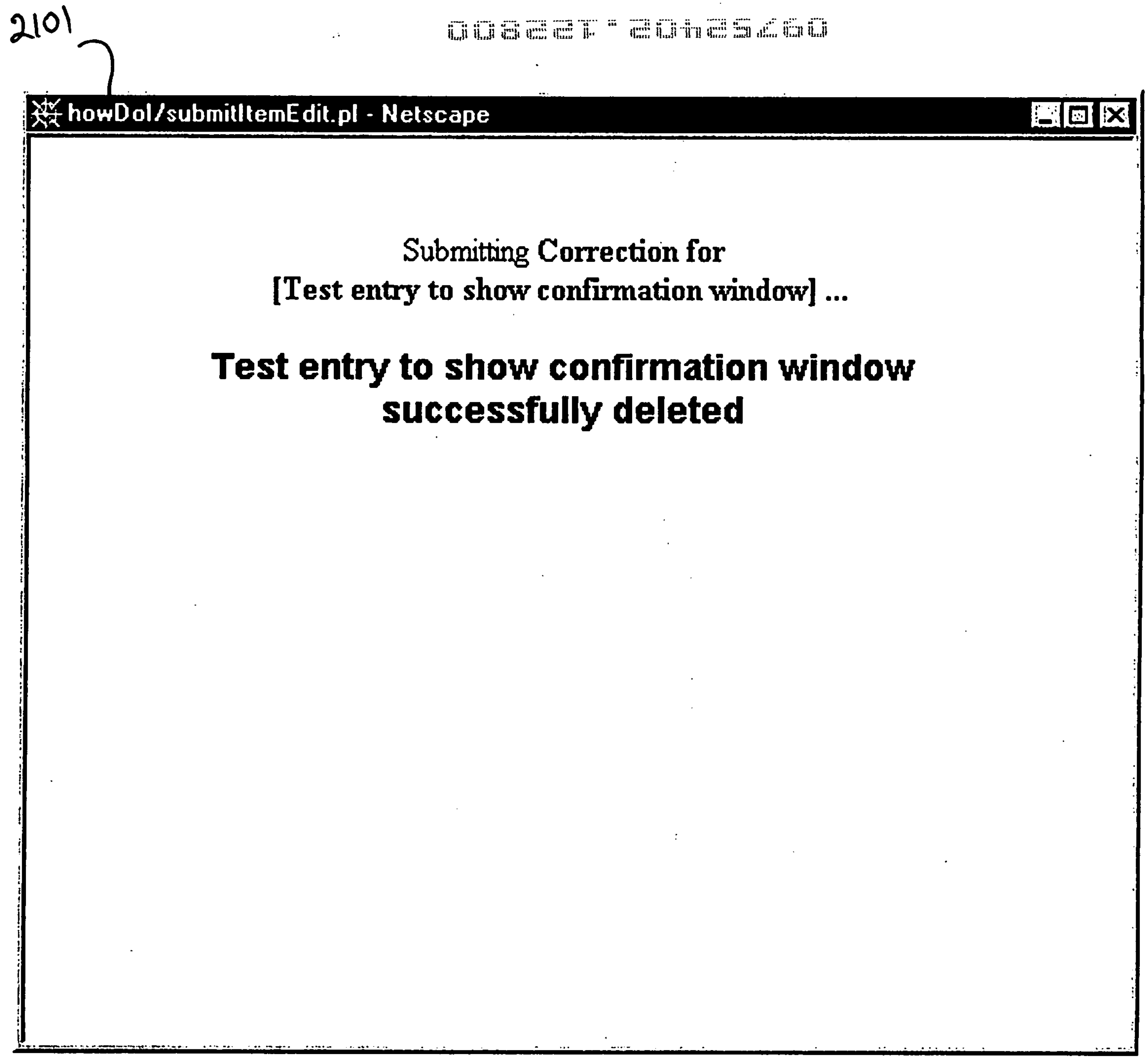
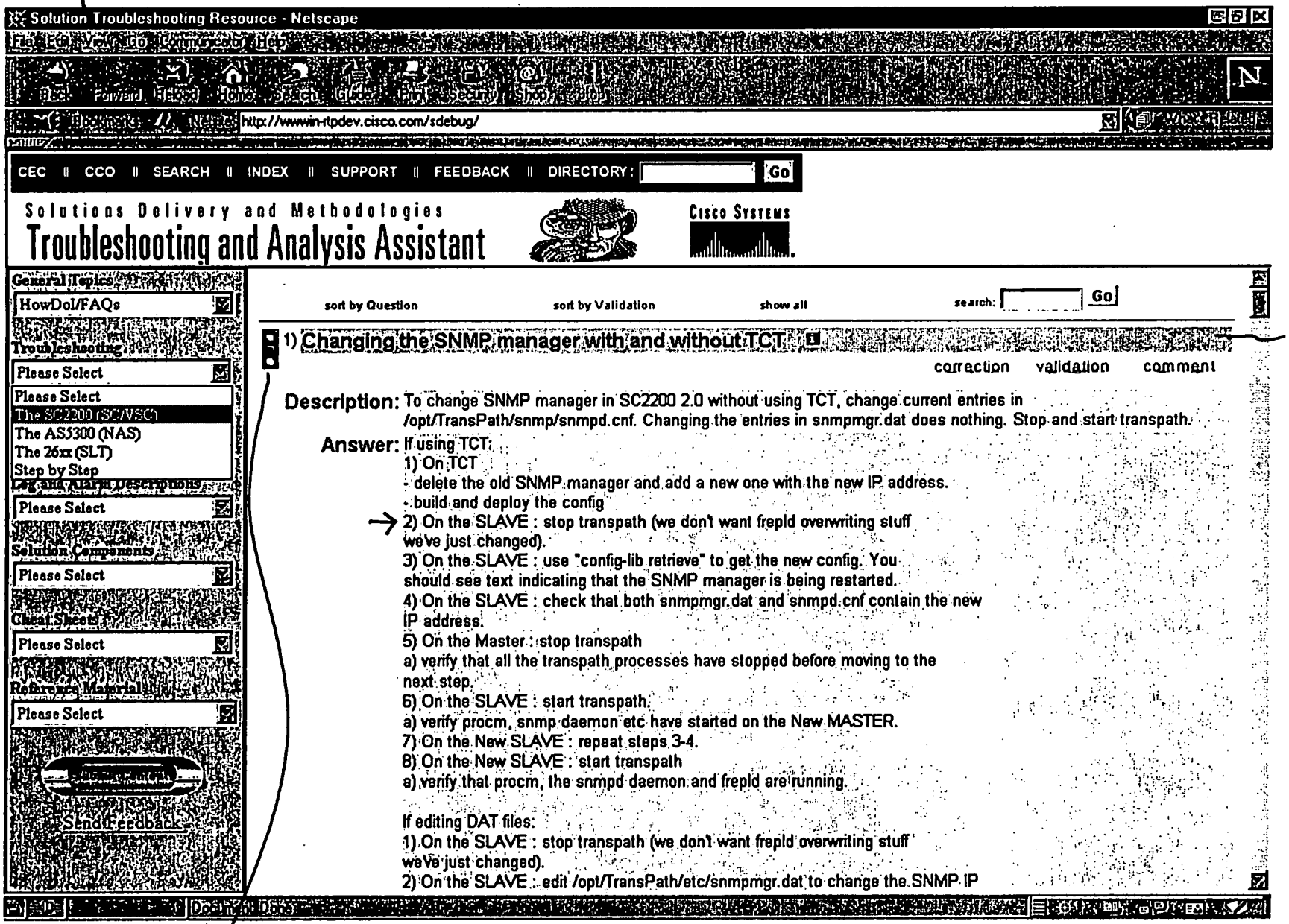


FIGURE 21A

2200



2220

2210

FIGURE 22

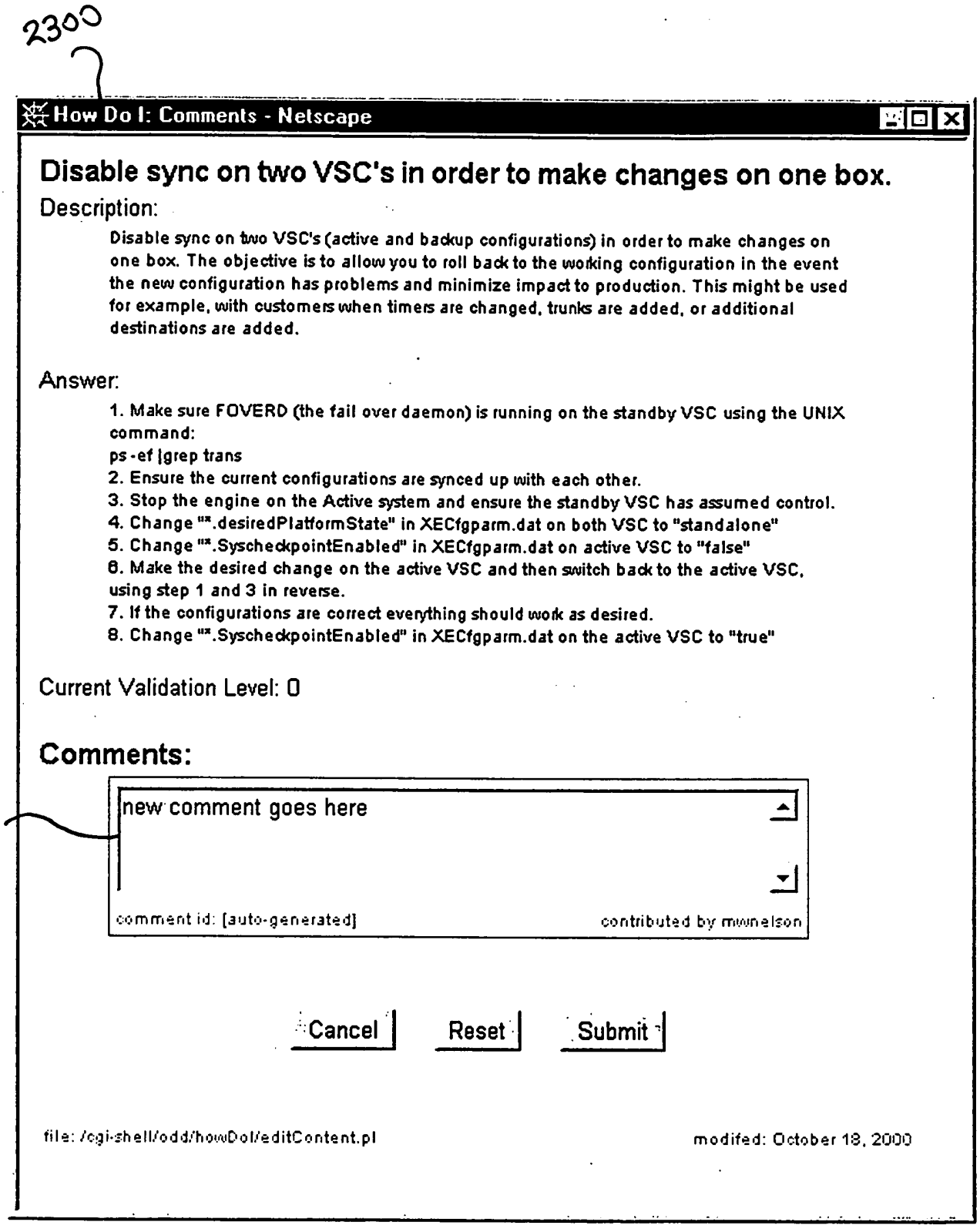

2300
How Do I: Comments - Netscape
Disable sync on two VSC's in order to make changes on one box.
Description:
Disable sync on two VSC's (active and backup configurations) in order to make changes on one box. The objective is to allow you to roll back to the working configuration in the event the new configuration has problems and minimize impact to production. This might be used for example, with customers when timers are changed, trunks are added, or additional destinations are added.
Answer:
1. Make sure FOVERD (the fail over daemon) is running on the standby VSC using the UNIX command:
ps -ef |grep trans
2. Ensure the current configurations are synced up with each other.
3. Stop the engine on the Active system and ensure the standby VSC has assumed control.
4. Change "*.desiredPlatformState" in XECfgparm.dat on both VSC to "standalone"
5. Change "*.SyscheckpointEnabled" in XECfgparm.dat on active VSC to "false"
6. Make the desired change on the active VSC and then switch back to the active VSC, using step 1 and 3 in reverse.
7. If the configurations are correct everything should work as desired.
8. Change "*.SyscheckpointEnabled" in XECfgparm.dat on the active VSC to "true"
Current Validation Level: 0
Comments:
new comment goes here
comment id: [auto-generated]
contributed by mwnelson
Cancel
Reset
Submit
file: /cgi-shell/odd/howDoI/editContent.pl
modifed: October 18, 2000

FIGURE 23

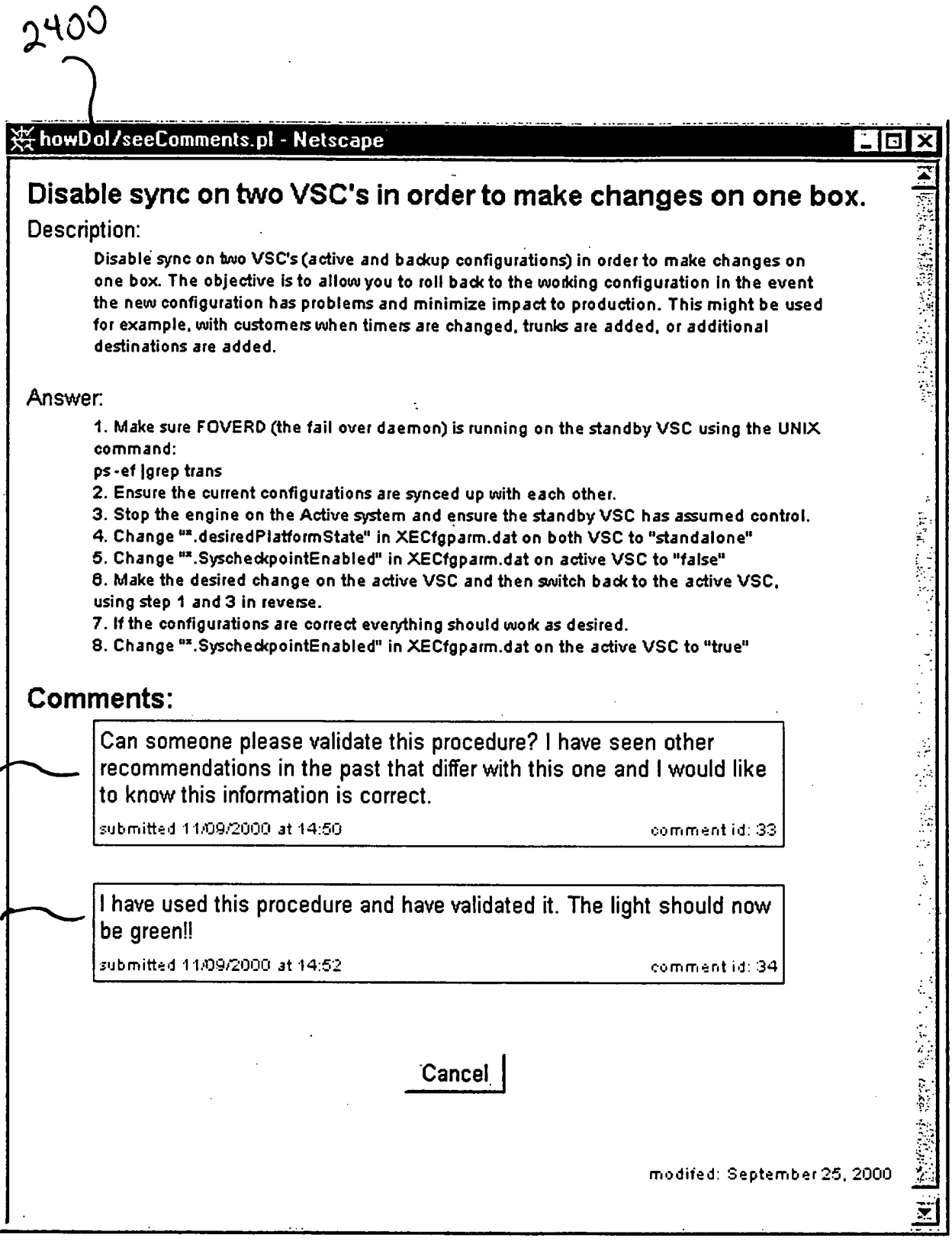

2400
howDol/seeComments.pl - Netscape
Disable sync on two VSC's in order to make changes on one box.
Description:
Disable sync on two VSC's (active and backup configurations) in order to make changes on one box. The objective is to allow you to roll back to the working configuration in the event the new configuration has problems and minimize impact to production. This might be used for example, with customers when timers are changed, trunks are added, or additional destinations are added.
Answer:
1. Make sure FOVERD (the fail over daemon) is running on the standby VSC using the UNIX command:
ps -ef |grep trans
2. Ensure the current configurations are synced up with each other.
3. Stop the engine on the Active system and ensure the standby VSC has assumed control.
4. Change "*.desiredPlatformState" in XECfgparm.dat on both VSC to "standalone"
5. Change "*.SyscheckpointEnabled" in XECfgparm.dat on active VSC to "false"
6. Make the desired change on the active VSC and then switch back to the active VSC, using step 1 and 3 in reverse.
7. If the configurations are correct everything should work as desired.
8. Change "*.SyscheckpointEnabled" in XECfgparm.dat on the active VSC to "true"
Comments:
1
Can someone please validate this procedure? I have seen other recommendations in the past that differ with this one and I would like to know this information is correct.
submitted 11/09/2000 at 14:50
comment id: 33
2
I have used this procedure and have validated it. The light should now be green!!
submitted 11/09/2000 at 14:52
comment id: 34
Cancel
modifed: September 25, 2000

FIGURE 24

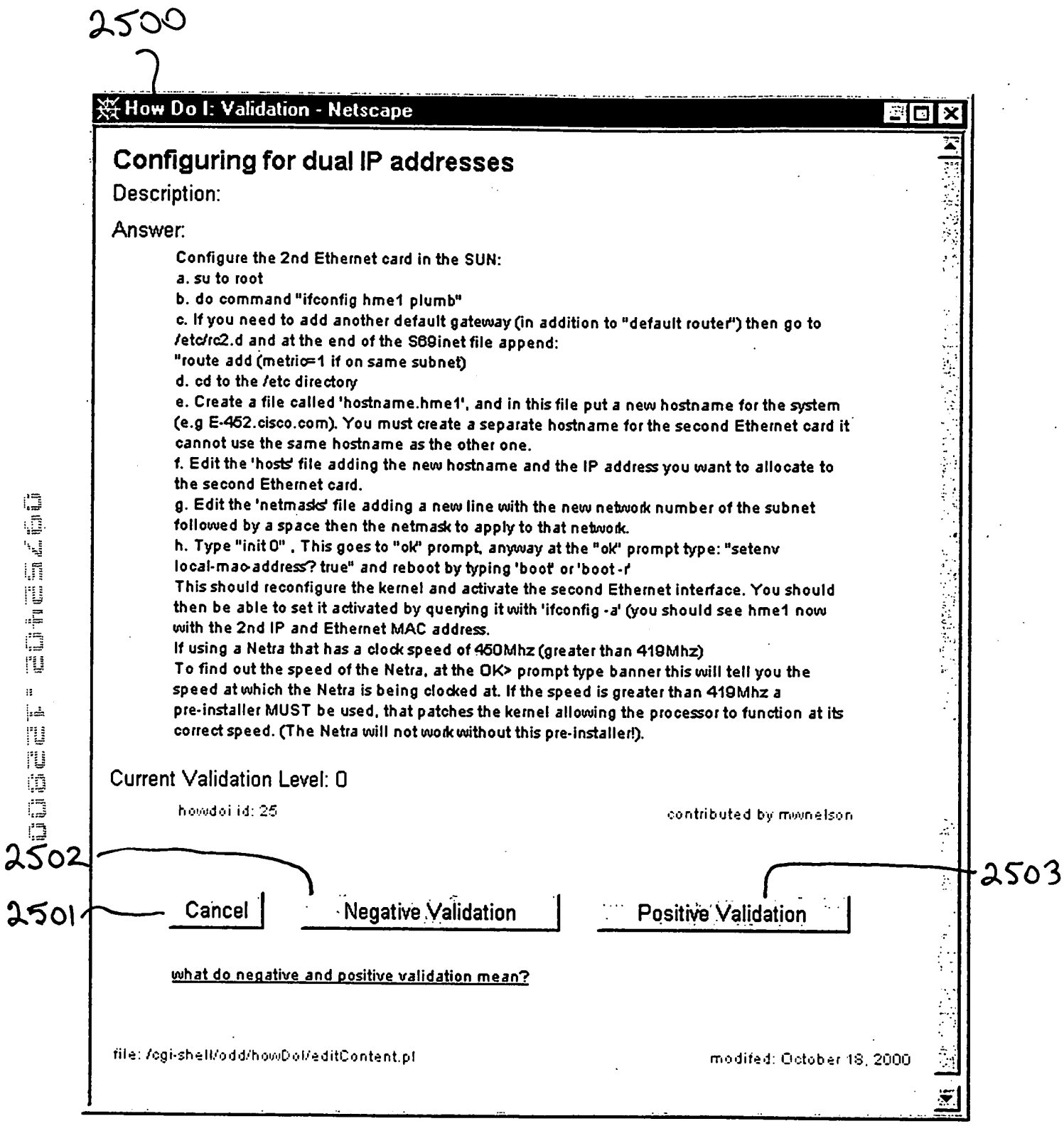

2500
How Do I: Validation - Netscape
Configuring for dual IP addresses
Description:
Answer:
Configure the 2nd Ethernet card in the SUN:
a. su to root
b. do command "ifconfig hme1 plumb"
c. If you need to add another default gateway (in addition to "default router") then go to /etc/rc2.d and at the end of the S69inet file append:
"route add (metric=1 if on same subnet)
d. cd to the /etc directory
e. Create a file called 'hostname.hme1', and in this file put a new hostname for the system (e.g E-452.cisco.com). You must create a separate hostname for the second Ethernet card it cannot use the same hostname as the other one.
f. Edit the 'hosts' file adding the new hostname and the IP address you want to allocate to the second Ethernet card.
g. Edit the 'netmasks' file adding a new line with the new network number of the subnet followed by a space then the netmask to apply to that network.
h. Type "init 0" . This goes to "ok" prompt, anyway at the "ok" prompt type: "setenv local-mac-address? true" and reboot by typing 'boot' or 'boot -r'
This should reconfigure the kernel and activate the second Ethernet interface. You should then be able to set it activated by querying it with 'ifconfig -a' (you should see hme1 now with the 2nd IP and Ethernet MAC address.
If using a Netra that has a clock speed of 450Mhz (greater than 419Mhz)
To find out the speed of the Netra, at the OK> prompt type banner this will tell you the speed at which the Netra is being clocked at. If the speed is greater than 419Mhz a pre-installer MUST be used, that patches the kernel allowing the processor to function at its correct speed. (The Netra will not work without this pre-installer!).
Current Validation Level: 0
howdoi id: 25
contributed by mwnelson
2502
2501
Cancel
Negative Validation
Positive Validation
2503
what do negative and positive validation mean?
file: /cgi-shell/odd/howDoI/editContent.pl
modified: October 18, 2000

FIGURE 25

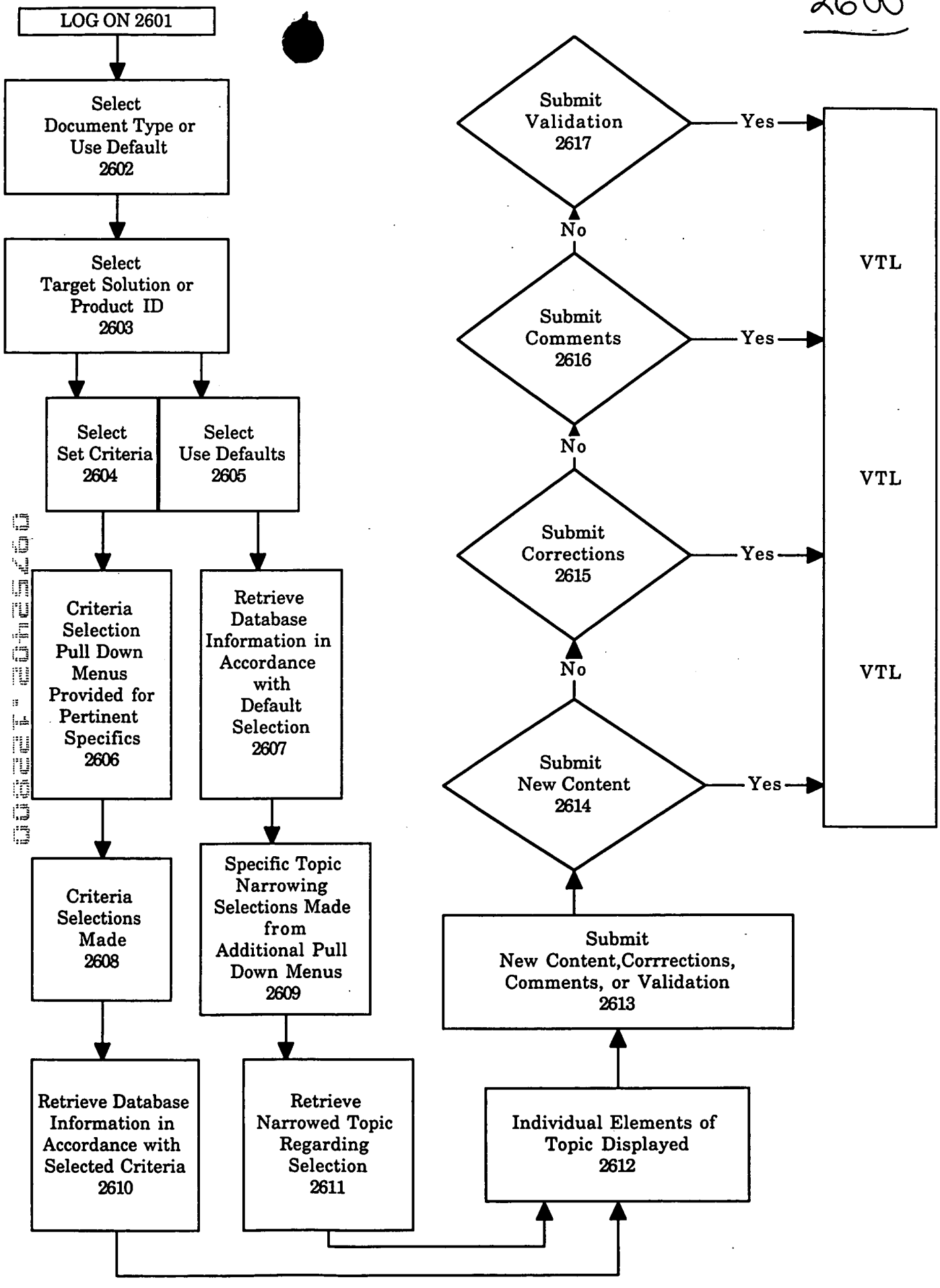

2600
LOG ON 2601
Select Document Type or Use Default 2602
Select Target Solution or Product ID 2603
Select Set Criteria 2604
Select Use Defaults 2605
Criteria Selection Pull Down Menus Provided for Pertinent Specifics 2606
Retrieve Database Information in Accordance with Default Selection 2607
Criteria Selections Made 2608
Specific Topic Narrowing Selections Made from Additional Pull Down Menus 2609
Retrieve Database Information in Accordance with Selected Criteria 2610
Retrieve Narrowed Topic Regarding Selection 2611
Individual Elements of Topic Displayed 2612
Submit New Content,Corrrections, Comments, or Validation 2613
Submit New Content 2614
Submit Corrections 2615
Submit Comments 2616
Submit Validation 2617
Yes
No
VTL
VTL
VTL

FIGURE 26